DOCUMENT RESUME

ED 437 575 CE 079 666

AUTHOR	Melchior, Alan
TITLE	National Evaluation of Learn and Serve America School and Community-Based Programs. Final Report.
INSTITUTION	Abt Associates, Inc., Cambridge, MA.; Brandeis Univ., Waltham, MA. Center for Human Resources.
SPONS AGENCY	Corporation for National Service.
PUB DATE	1998-07-00
NOTE	403p.; For a related evaluation of Learn & Serve America, see CE 079 665. Prepared with the assistance of: Joseph Frees, Lisa LaCava, Chris Kingsley, Jennifer Nahas, Jennifer Power, Gus Baker, John Blomquist, and Anne St. George.
AVAILABLE FROM	For full text: http://www.cas.gov/research/index.html.
PUB TYPE	Numerical/Quantitative Data (110) -- Tests/Questionnaires (160)
EDRS PRICE	MF01/PC17 Plus Postage.
DESCRIPTORS	Citizenship Education; Comparative Analysis; Cost Effectiveness; Educational Benefits; Educational Quality; Followup Studies; High Schools; Integrated Curriculum; Matched Groups; Middle Schools; National Programs; National Surveys; Outcomes of Education; Participant Characteristics; Partnerships in Education; Policy Formation; Pretests Posttests; *Program Effectiveness; Program Evaluation; Public Policy; *Public Service; *School Community Relationship; *Service Learning; Student Attitudes; Student Participation; Tables (Data); Teacher Attitudes; *Youth Programs
IDENTIFIERS	*Community Service; Impact Studies; *Learn and Serve America

ABSTRACT

This document reports on the conduct and findings of a 3-year evaluation of the 1995-96 school year of the Learn and Serve America School and Community-Based Programs, which were initiated to support school and community-based efforts to involve school-aged youth in community service. Well-designed, school-based service-learning programs have a positive impact on young peoples' civic and educational attitudes and school performance while also meeting important community needs. While the impacts on participants tend to fade in the year after initial participation, students who continue their involvement in organized service do continue to show positive effects over the longer-term. When these programs are well-designed and full-implemented, they are more likely to produce impacts on participating youth, demonstrating the importance of continuing the emphasis on improving the quality of these programs to meet the goals of the national community service legislation. Thirty-seven tables and figures are included. The appendixes contain: site selection sampling strategy; impact estimation methods; definitions of scales and other outcome measures; 54 tables detailing postprogram participant impacts, postprogram subgroup impacts, follow-up participant and subgroup effects, and follow-up effects for repeaters and nonrepeaters; and 4 survey instruments.) (MN)

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National Evaluation of Learn and Serve America School and Community-Based Programs

Final Report

prepared for
The Corporation for National Service
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July, 1998

CE079664

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EXECUTIVE SUMMARY

Final Report
Learn and Serve America
School and Community-Based Programs

In 1993, the National and Community Service Trust Act established the Learn and Serve America School and Community-Based Programs to support school and community-based efforts to involve school-aged youth in community service. The program is administered by the Corporation for National Service and funded through grants to states and national organizations, and through them to individual school districts, schools, and community organizations. In 1994-95, the first year of the program, the Corporation awarded approximately $30 million in grants supporting over 2,000 local efforts involving over 750,000 school-aged youth.

Between 1994 and 1997, Brandeis University's Center for Human Resources and Abt Associates Inc. conducted an evaluation of the national Learn and Serve America program for the Corporation for National Service. The evaluation was designed to address four fundamental questions:

1. *What is the impact of program participation on program participants?*
2. *What are the institutional impacts on participating schools and community organizations?*
3. *What impacts do Learn and Serve programs have on their communities?*
4. *What is the return (in dollar terms) on the Learn and Serve investment?*

To answer these questions, the evaluation examined programs in seventeen middle and high school sites across the country using a variety of quantitative and qualitative methods. These included analysis of pre- and post-program surveys and school record data for approximately 1,000 Learn and Serve program participants and comparison group members; analysis of survey and school record data on approximately 760 participants and comparison group members at a one-year follow-up; analysis of teacher and community agency surveys from the seventeen sites; and on-site interviews and observation. The major focus for the evaluation was the 1995-96 school year, with student and teacher follow-up surveys taking place in Spring 1997.

The purpose of this report is to present the findings from the evaluation. It provides information on four major areas of impact: short- and longer-term participant impacts, services provided to communities, impacts on participating schools, and an analysis of program return on investment.

It is important to note that, in contrast to many national evaluations, this study does not focus on a representative sample of Learn and Serve programs. Instead, the evaluation focuses on a specific subset of "well-designed," or "high quality" programs. All of the programs selected for the study had been in operation for more than one year when selected and reported higher than average service hours and regular use of written and oral reflection. All were school-based initiatives and linked to a formal course curriculum. As such, this evaluation is not intended to address the average impact of *all* Learn and Serve programs, but rather to identify the impacts that can be reasonably expected from mature, fully-implemented, school-based service-learning efforts.

The major findings from the evaluation are as follows:

POST-PROGRAM PARTICIPANT IMPACTS

The evaluation examined participants impacts at two points in time: immediately after program participation (short-term or post-program impacts) and one year after initial participation (impacts at follow-up).

Based on the data from the 1995-96 school year, the Learn and Serve programs in this study had a positive post-program impact on the civic attitudes and educational development of program participants. At the end of the 1995-96 program year:

- Learn and Serve participants in the study showed positive, statistically significant impacts on three of the four measures of civic attitudes used in the study: acceptance of cultural diversity, service leadership (defined as the degree to which students feel they are aware of needs in a community, are able to develop and implement a service project, and are committed to service now and later in life), and "civic attitudes," a measure that combines measures of service leadership, acceptance of diversity, and personal and social responsibility.
- The Learn and Serve programs also involved participants in significantly more volunteer service than comparison group members. Participants were 20% more likely than comparison group members to have been involved in some form of volunteer service during the previous six months and provided more than twice as many hours of service during that time period. The data on hours show that service programs were not simply diverting students from other volunteer opportunities. Rather, they were increasing the number of students involved in service and significantly increasing the hours of service they provided.
- Learn and Serve programs also had a positive effect on participants' educational attitudes and school performance during program participation, with positive, statistically significant impacts on two measures — school engagement and math grades — and marginally significant impacts on science grades and core grade point average (English, math, science, and social studies grades combined). There were no significant impacts on English and social studies grades or measures of course failure homework hours, or educational aspirations. While the impacts were generally small, the combination of impacts on attitudes and grades (especially core grade point average) suggests that service-learning is having a positive influence on school performance while students are in the program.[1]

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[1] For the purposes of this study, impacts are considered statistically significant if they are significant at the .05 level or higher. However, we will report and discuss impacts that are "marginally significant" (that is, significant at the .10 level) though they are not considered as reliable as the results with higher levels of significance.

- There were no statistically significant impacts for the participants as a whole on the measures of social or personal development, including communications skills, work orientation, or involvement in risk behaviors. However, there was a significant positive impact on arrests and teenage pregnancy for middle school participants, and a marginally significant impact on teenage pregnancy for the participants as a whole. The fact that there was an impact on two risk measures for middle school students suggests that involvement in well-designed service learning may play a role in reducing some risk behaviors among younger students. Similarly, the finding on teenage pregnancy, when coupled with results from other studies, suggests that while service alone may not dramatically reduce risk behaviors, service may contribute to the effectiveness of more comprehensive programs targeted to reducing risk behaviors among school-aged youth.

- Analysis of impacts among different populations in the study also indicate that the impacts of service-learning were shared relatively equally by a wide range of youth (white and minority, male and female, educationally and economically disadvantaged, etc.). While some groups showed stronger impacts in one area or another (for example, minority students showed relatively strong impacts on grades), there were no consistent differences in impacts among the subgroups, and most of the positive post-program impacts were shared across the board.

PARTICIPANT IMPACTS AT FOLLOW-UP

While there were a number of positive impacts at post-program, by the time of the follow-up study in Spring, 1997, most of the post-program impacts had disappeared. For the participant group as a whole, the only impacts evident at follow-up were marginally significant positive impacts on service leadership, school engagement, and science grades. The follow-up data also indicate a decline in English grades for participants, though the average English grades for participants remained higher that those of comparison group members at the time of follow-up.

- In general, students from the high school programs showed a stronger pattern of impacts at follow-up than students from the middle schools. High school students showed positive, statistically significant impacts on service leadership and science grades, and marginally significant impacts on school engagement and volunteer hours. For the middle school students the only significant impact at follow-up was a marginally significant positive impact on arrests.

- Follow-up impacts were also significantly stronger for participants who had continued their involvement in organized service activities during the follow-up year when compared to those for students who reported no organized service involvement in the follow-up period. Students who continued their involvement in organized service show positive impacts on measures of service leadership, service hours, and school engagement, as well as marginally significant impacts on involvement in service, college aspirations, and consumption of alcohol. For several of these measures, the gains for "repeaters" were significantly larger than those for students who did not continue their involvement in service during the follow-up year.

Overall, the follow-up data provide little evidence that one-time participation in even a well-designed service-learning program is likely to have substantial long-term participant impacts. The data does suggest that students who continue their involvement in service are significantly more likely to continue to experience the benefits of participation.

STUDENT ASSESSMENTS OF THE PROGRAM EXPERIENCE

When asked directly about their program experience (through post-program surveys and interviews), program participants gave high marks to their service-learning experience:

- More than 95% of the program participants reported that they were satisfied with their community service experience and that the service they performed was helpful to the community and the individuals they served.
- 87% of the participants believed that they learned a skill that would be useful in the future, and 75% said that they learned more than in a typical class.
- 75% reported developing a good personal relationship through service, generally with other students or a service beneficiary.
- Over 90% felt that students should be encouraged (though not required) to participate in community service.

SERVICE IN THE COMMUNITY

The services provided by the Learn and Serve programs were highly rated by the community agencies, schools, hospitals, and other agencies where students provided assistance.

- 99% of the agencies rated their overall experience with the local Learn and Serve program as "good" or "excellent."
- 97% of the agencies indicated that they would pay at least minimum wage for the work being done, and 96% reported that they would use participants from the program again.
- 90% of the agencies indicated that the Learn and Serve participants had helped the agency improve their services to clients and the community, and 68% said the use of the participants had increased the agency's capacity to take on new projects;
- 66% reported that the experience had increased the agency's interest in using student volunteers;

- 56% said that participating in the program had produced new relationships with public schools, and 66% said that it had fostered a more positive attitude towards working with the public schools; and
- 82% reported that the Learn and Serve program had helped to build a more positive attitude towards youth in the community.

INTEGRATING SERVICE INTO SCHOOLS

The service learning programs in the study were strongly supported by administrators and fellow teachers on average, and the large majority of programs appear likely to continue to operate after the end of their Learn and Serve grants. However, despite the general support for service-learning, few of the sites engaged in organized efforts to expand the use of service within the school or the district, and during the two years in which the sites were followed, there was no significant increase in the proportion of teachers using service-learning or measurable change in teaching methods or school climate.

RETURN ON INVESTMENT

Based on an analysis of program costs and the value of the volunteer services provided by program participants, it is clear that the dollar benefits of well-designed service-learning programs substantially outweigh the costs. On average, participants in the programs in the study produced services valued at nearly four times the program cost during the 1995-96 program year. While the dollar value of participant gains in attitudes or academic performance cannot be calculated, they do represent an additional benefit. The net result is a substantial return on the public investment.

CONCLUSIONS

The data from the evaluation confirm that well-designed, school-based service-learning programs have a positive impact on young peoples' civic and educational attitudes and school performance while also meeting important community needs. While the impacts on participants tend to fade in the year after initial participation, students who continue their involvement in organized service do continue to show positive effects over the longer-term. When compared to other studies, the results from this evaluation also lend support to the argument that "well-designed","fully-implemented" service-learning programs are more likely to produce positive impacts on participating youth. As such, the findings highlight the importance of the Corporation and the states continuing their emphasis on improving the quality of local service-learning programs. The more that Learn and Serve programs begin to resemble the more intensive, fully-implemented service-learning efforts in this study, the more likely those programs will meet the goals of the national community service legislation.

ACKNOWLEDGEMENTS

This report is the product of a team effort involving evaluation staff at Brandeis University's Center for Human Resources and Abt Associates, as well as staff at the seventeen Learn and Serve programs in the evaluation and the Corporation for National Service. We would like to take this opportunity to acknowledge their critical contribution and express our thanks.

At the Center for Human Resources at Brandeis University, Joseph Frees, Chris Kingsley, Lisa LaCava, Jennifer Nahas, and Jennifer Power served as site managers for the evaluation, conducting site observations and interviews and working with the staff at each study site to coordinate the data collection process. Paul Aaron also assisted in the work with the sites. Karin Steinbrueck and Brian Cook coordinated the data management in-house and managed the host agency telephone interviews. Barbara Epstein also assisted in the interview process. Andrew Hahn and Larry Bailis provided ongoing assistance and advice.

A number of staff at Abt Associates also played key roles in the project. Scott Hebert served as the Abt Project Director during the first year of the evaluation and was succeeded by JoAnn Jastrzab. Both have lent their substantial expertise and experience to the planning and implementation of the study. Anne St. George was responsible for managing the day-to-day work of data collection, processing, and analysis at Abt. She was chiefly responsible for bringing order and consistency to information gathered from seventeen different sources. John Blomquist and Gus Baker were the principal analysts for the participant impact and follow-up studies. Both invested considerable amounts of their own time in working through the intricacies of the statistical analysis. All were assisted by Keri-Nicole Dillman and Stacy Supran.

Christopher Winship at Harvard University also played a key role as an advisor in the later stages of the study, helping project staff work through a number of questions that arose in the participant follow-up analysis.

None of the work of the evaluation would have taken place without the active assistance and cooperation of the teachers, program coordinators, and administrators at each of the study sites. While many people gave their time, we would like to especially thank the following individuals: Gwyn Van Valley, Gary Cisco, Joy Pelton and Lana Daley, Susan Anderson, Dwain Ingram and Doris Granberry, Jean Kenin, Sarah Buchanan, Marva Daniel and Offie Rashed, Dawn Sherwood, Jean Rose, Rita Gaither, Robert Pierce and Christine Kilbane, Joseph Paradise, Virginia Lam, Gwen Treat and Rebecca Harrison, Toni Stone, Shirley Porter and Ronald Bell, and Bill Sepnafski.

Lastly, we would like to thank staff at the Corporation, who provided guidance and assistance throughout the evaluation, and in particular Chuck Helfer, who has served as the Project Officer for the Study, and Lance Potter, Director of the Evaluation Unit at the Corporation.

CHAPTER ONE

INTRODUCTION

This report presents the final results from the national evaluation of the Learn and Serve America School and Community-Based Programs. The evaluation was based on a study of seventeen school-based service initiatives that were selected to represent mature, fully-implemented service-learning programs. The report includes five major areas of analysis: an analysis of the short-term ("post-program") impact of the Learn and Serve programs on participants, based on surveys and school record information for approximately 1,000 middle and high school students from the 1995-96 school year; an analysis of longer-term results based on a follow-up study conducted in 1997; an analysis of the service provided by program participants to their communities; an analysis of the integration of service in the participating schools; and an assessment of the program's return on investment.

THE LEARN AND SERVE PROGRAM

In 1993, the National and Community Service Trust Act (P.L. 103-82) established the Learn and Serve America School and Community-Based Programs to support school and community-based efforts to involve school-aged youth in community service. The primary purpose of Learn and Serve is the involvement of school-aged youth in programs and classroom activities that link meaningful service in the community with a structured learning experience (i.e., service-learning). The goals of the program are to help young people develop as responsible citizens, improve their academic skills, and develop as individuals, while helping to meet "the unmet human, educational, environmental, and public safety needs of the United States." Learn and Serve is also designed to promote the integration of service-learning in schools and academic curriculum, and to promote the delivery of needed services in the community.[1]

The Learn and Serve program is administered by the Corporation for National Service. The program is funded through grants to states and national organizations, and through them to individual school districts, schools, and community organizations. In 1994-95, the first year of the program, the Corporation awarded approximately $30 million in grants supporting over 2,000 local efforts involving over 750,000 school-aged youth.

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[1] The Learn and Serve program is the successor to the Serve-America program, which was established under the original 1990 National and Community Service Act (P.L. 101-610). The 1993 legislation creating Learn and Serve modified and expanded Serve-America by creating separate funding streams for school and community-based programs, and by increasing the emphasis on service-learning. Funding for the program also increased from approximately $16 million annually for Serve-America to approximately $30 million for Learn and Serve. The 1993 National and Community Service Trust Act also established the Learn and Serve Higher Education program, which supports the participation of postsecondary students in service, and the AmeriCorps program, a full-time national service corps, which provides stipends and educational benefits to individuals who provide up to two years of full-time volunteer service.

OVERVIEW OF THE LEARN AND SERVE EVALUATION

In 1994, the Corporation for National Service selected Brandeis University's Center for Human Resources and Abt Associates to conduct an evaluation of the Learn and Serve School and Community-Based Programs. The Learn and Serve evaluation was designed to address four fundamental questions:

1. ***What is the impact of program participation on program participants*** in terms of citizenship-related attitudes, involvement in community service, increased educational attainment, improved life skills, and reduced risk behaviors?
2. ***What are the institutional impacts of Learn and Serve programs on participating schools and community agencies***—in terms of the establishment of permanent service-learning opportunities, the incorporation of service-learning into mainstream learning, and the development of new partnerships between schools and the community?
3. ***What impacts do Learn and Serve programs have on their communities***—in terms of the specific accomplishments of service programs, the impact on service beneficiaries, and the impact on the broader community in terms of increased volunteerism or collaboration among schools and community agencies?
4. ***What is the return (in dollar terms) on the Learn and Serve investment?***

To answer these questions, the evaluation examined middle and high school Learn and Serve programs in seventeen schools across the country using a variety of quantitative and qualitative methods. Major elements of the evaluation included:

1. A participant impact study, based on pre- and post-program and follow-up surveys of program participants and comparison group members, as well as analysis of school record data and on-site student interviews;
2. An institutional impact study that combined on-site interviews with program coordinators, school administrators, faculty, students, and host agency representatives with school-wide surveys of teachers in the participating schools to examine broader use and attitudes towards service-learning;
3. A community impact analysis based on a series of telephone surveys of host agency (service site) administrators in all seventeen sites, collecting information on program accomplishments, service quality, and the estimated dollar value of the services provided;
4. Analysis of return on investment based on the data collected through the host agency surveys (estimated value of service) and program financial data.

The focus for the evaluation was the 1995-96 school year, with student and teacher follow-up surveys taking place in Spring 1997.

THE EVALUATION STUDY SITES

The basis for this evaluation was the experience of seventeen middle and high school Learn and Serve programs in nine states around the country.[2] The programs are described in Exhibit 1.1 at the end of this chapter. The programs were selected through a purposive sampling process aimed at identifying well-established, fully-implemented service-learning programs, defined as those programs that had been in existence for more than one year (to eliminate obvious start-up problems) and that reported higher than average hours of service and regular use of written and oral reflection. The goal in this process was to select well-designed programs that represented a more intensive, higher quality service-learning experience than average. All the sites in the evaluation were school-based initiatives and linked to a formal course curriculum, either as part of a core subject (for example an English or social studies class) or an elective course. The evaluation sites were selected from a pool of approximately 210 middle and high school service-learning programs that had been randomly selected and contacted as part of the site selection process.[3]

The decision to focus the evaluation on more intensive, fully-implemented, school-based service-learning programs has important implications for understanding the evaluation findings. The Learn and Serve evaluation was designed to build on the recently completed Serve-America evaluation (which was based on a representative sample of programs) by focusing on a subset of programs that met basic quality criteria for effective service-learning, rather than on a representative cross-section of all Learn and Serve programs nationally. Based on the information gathered for the site selection process, these programs represented approximately 15% of the Learn and Serve programs operating in 1994-95. As such, ***this evaluation was not designed to address the average impact of all Learn and Serve programs, but rather to identify the impacts that can be reasonably expected from mature, fully-implemented, school-based service-learning efforts***. In that regard, the programs in the evaluation should be considered as representing the upper tier of Learn and Serve programs, and the evaluation should be seen as indicative of the potential impacts for service-learning as programs mature and implementation improves throughout the system.[4]

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[2] The nine states are California, Florida, New Mexico, New York, North Carolina, Ohio, Pennsylvania, Texas, and Wisconsin.

[3] The site selection process is described in detail in Appendix A. Briefly, the evaluation randomly selected 10 states from a weighted pool of Learn and Serve grant recipients and then contacted a sample of subgrantees in each state to confirm or collect information on the local Learn and Serve programs. In all, information was collected on 210 local programs. The information on those programs, in turn, was then used to identify the pool of programs that met the selection criteria. The evaluation team contacted those programs and solicited their participation in the evaluation. Originally, 18 programs agreed to participate in the evaluation. One program was later dropped because of difficulties in collecting participant information. Elementary schools were not included in the evaluation, primarily because of the differences and difficulties in assessing impacts for that age group.

[4] There were a number of reasons for focusing the evaluation on this subset of programs. At the time of the evaluation design, Abt Associates and Brandeis University were completing an evaluation of the Serve-America program, Learn and Serve's predecessor, based on a representative sample of sixteen program sites. Given the similarities between Serve-America and Learn and Serve programs, it was felt that an evaluation based on a similar methodology would provide little additional information to aid the Corporation's policy-making and program oversight. At the same time, there were indications in the Serve-America study that program quality and intensity were factors that affected program impact (See Alan Melchior and Larry Orr, *Final Report: National Evaluation of*

Though representing a relatively select group of programs in terms of intensity and implementation, the seventeen programs included in the study did vary substantially in their organization and structure, reflecting much of the broader diversity among Learn and Serve programs around the country:

- Ten of the programs were high school programs and seven serve middle school students.
- Ten were integrated into academic classes; seven were structured as stand-alone, elective service-learning courses. Nine of the programs were part of a school-wide service or service-learning strategy.
- Four of the Learn and Serve programs were integrated into special programs for at-risk youth. Three of the programs (including two of those targeted to at-risk youth) took place within alternative school settings.
- Eight of the programs took place in urban settings, five were primarily suburban, and four took place in rural areas.
- Overall, the Learn and Serve programs in the study sites ranged in size from 21 students to over 400 participants in the school-wide efforts. Direct service hours ranged from an average of 3 hours per participant to 196, with an average of 77 hours across the sites.

The students in these programs also represented a diverse group of young people. It is important to recognize that while the *programs* were selected to represent a particular level of implementation, they were not selected based on their participant characteristics. As a result, they included a diverse group of young people in terms of age, ethnicity, socioeconomic background, and prior experience with service-learning (see Exhibit 1.2):

- 29% of the participants were in middle school (grades 6-8) and 71% in high school (grades 9-12). The largest single group was high school seniors (35%).
- 60% were female, 40% male.
- 58% of the students were White, 17% African-American, 19% Hispanic; 6% indicated that they were Asian, Native American, or multicultural; 95% came from English-speaking homes.

Serve-America, Cambridge, MA: Abt Associates, December, 1995). The decision was made, as a result, to focus the Learn and Serve evaluation on programs that were well-established and represented fully-implemented service-learning models.

The decision to focus on programs that were linked to a formal course curriculum was based on a similar set of considerations. Approximately 28% of the local programs contacted in the course of the site selection process characterized themselves as "service only" programs—generally after-school community service clubs. Given the emphasis on service-learning rather than service *per se* in the 1993 legislation, it was decided to focus the evaluation on those school-based programs that had a service-learning focus.

Finally, the decision to limit the evaluation to school-based efforts (and exclude community-based programs from the study) reflected the common trade-off between the scope and reliability of the study and available resources. Given the resources for a limited number of sites, it was decided to focus the study on school-based programs (which represent the major focus of the legislation and federal funding) rather than split the sample among school and community-based initiatives.

- 38% were economically disadvantaged and 30% were identified as educationally disadvantaged.[5]
- 29% had been involved in some form of self-reported delinquent behavior (been in a fight, used a weapon, hurt someone badly) during the past 6 months at baseline.
- 45% had been involved in a service-learning class in a prior year.[6]

ORGANIZATION OF THE REPORT

The remainder of the report presents the results of the evaluation. Chapter Two provides an overview of the programs and the service experience in the evaluation sites. Chapter Three then presents data on the post-program participant impacts, based on the analysis of survey and school record data. Chapter Four presents a similar analysis of participant impacts at follow-up. Chapter Five then presents the students' perspective on their service experience, using a mix of interview and survey data. Chapter 6 discusses the services that program participants provided to their communities and provides an assessment of the service quality and impact based on surveys of staff at the local service sites. Chapter 7 examines the institutional impacts of Learn and Serve on participating schools with a particular focus on the institutionalization and integration of service-learning. Finally, Chapter 8 presents the findings on the dollar return on investment for the Learn and Serve programs in the study.

In a separate volume, appendices provide additional details related to the major findings in the report. Appendix A provides information on the site selection process. Appendix B reviews the methodology used in the participant impact analysis and includes information on the characteristics of the participants and comparison group members at baseline. Appendix C provides information on the measures used in the participant analysis. Appendix D provides statistical tables detailing the results of the overall post-program participant impact analysis, and Appendix E provides tables with results from the subgroup analysis of the post-program data. Appendix F provides tables with the follow-up participant impact results, and Appendix G provides data on the subgroup differences at follow-up. Appendix H presents the data on program "repeaters" and "non-repeaters" at follow-up — that is, students who were and were not involved in service during the follow-up year. Finally, Appendix I includes copies of the survey instruments used in the study.

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[5] Data on economic and educational status were reported by the schools as part of the school record data collection. Economically disadvantaged was defined as students who were eligible for free and reduced cost lunch, JTPA, Food Stamps, AFDC, or other income tested programs. Educationally disadvantaged students were those who were reported as eligible for Chapter 1 or Special Education or who were more than two years below grade level in reading or had been retained in grade at least once.

[6] Figures are based on the 608 program participants in the analysis sample for the study. Information on participant characteristics are drawn from the baseline survey data and school record information.

Exhibit 1.1
OVERVIEW OF EVALUATION SITE CHARACTERISTICS

Site	Description	Format	School-Wide Service Philosophy[a]	Location	Number of Participants	Avg. Direct Service Hours[b]
Middle School Programs						
E. Scranton Intermediate School (Scranton, PA)	Interdisciplinary 8th grade cluster focused on service-learning and involving students in a variety of projects. School is organized on a 6-day block cycle, 3 afternoons per cycle are spent in service activities.	Academic Class	Yes	Urban	30	196
Sierra Ridge Middle School (Pollock Pines, CA)	K-8 school with academic-based service-learning activities in all grades. Evaluation focused on 8th grade social studies class involved in a variety of projects.	Academic Class	Yes	Rural	200	3
Wanamaker Middle School (Philadelphia, PA)	Inner city school whose Creative and Performing Arts cluster links students and senior citizens in research on arts and in service through performance at various community locations.	Academic Class	Yes	Urban	70	25
Nocona Jr. High School (Nocona, TX)	A one semester service-learning elective for 7th and 8th grade students taught by the English and Science teachers. Students identify community issues and plan and carry out service projects.	Service-Learning Course	No	Rural	45	62
Futures Academy (Buffalo, NY)	K-8 magnet school in low income, urban neighborhood with school-wide mission of linking academics and the community through service-learning. Students become involved in service through the school's semester-long mini-courses and continue service throughout the year.	Service-Learning Course	Yes	Urban	400	20
Wakulla Middle School (Crawfordville, FL)	Program for at-risk students (with high achieving students as peer leaders) that involves students in a single, year-long community project. In 1995-6, students worked a half day every other week on the renovation of a community park.	Service-Learning Course/ At-Risk Program	No	Rural	108	17
Nathaniel Rochester Middle School (Rochester, NY)	Service-learning program for at-risk students at an urban middle school. The program is organized around a regular class during the school day and involves students in a wide variety of after-school and weekend service and school-to-work-related activities.	Service-Learning Course/ At-Risk Program	No	Urban	21	103

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Exhibit 1.1 *(continued)*

OVERVIEW OF EVALUATION SITE CHARACTERISTICS

Site	Description	Format	School-Wide Service Philosophy[a]	Location	Number of Participants	Avg. Direct Service Hours[b]
High School Programs						
N. Olmsted High School (N. Olmsted, OH)	Integrated English, Civics, and service-learning course for high school seniors combines academic course work with individual and small group service placements and special group projects.	Academic Class	No	Suburban	96	170
Coral Park Sr. High School (Miami, FL)	Intergenerational service program integrated into social studies classes as part of a statewide initiative. Students conduct a variety of projects with senior citizens, including fire safety, visits to senior centers, home visits, festivals, and special projects.	Academic Class	No	Suburban	150	28
Caprock High School (Amarillo, TX)	Service integrated into school-within-a-school program (Caprock Accelerated Program), with links to English, math, science, and social studies.	Academic Class/ Alternative School	Yes	Urban	250	120
Scotia-Glenville High School (Scotia, NY)	Quarterly service course (which could be repeated several times in a year) for 9th-12th graders; part of a multi-district program operating in middle and high schools. Students volunteer a minimum of two hours per week and meet on a weekly basis for reflection, discussion and writing.	Service-Learning Course	No	Urban	130	61
Hempstead High School (Hempstead, NY)	Year-long elective service-learning course ("Practicum in Civics") in social studies department that combines daily classes with three afternoons a week of service activities focused on class-defined issues in the community (teen violence, teen parenting, diversity, etc.)	Service-Learning Course	No	Urban	24	78
Taos High School (Taos, NM)	One semester elective social issues course that has students examine and address local issues through small group service projects.	Service-Learning Course	No	Urban	50	27

Exhibit 1.1 *(continued)*
OVERVIEW OF EVALUATION SITE CHARACTERISTICS

Site	Description	Format	School-Wide Service Philosophy[a]	Location	Number of Participants	Avg. Direct Service Hours[b]
High School Programs *(continued)*						
McDowell High School (Marion, NC)	Three programs were included in the evaluation: Peer Helpers, which trains students as peer counselors in the guidance office, as well as special projects with elementary and middle schools; the Peer Leadership program, with involves students in school-based service; and the Superstars-ROTC program which involves students in service (primarily peer tutoring) as part of the ROTC program.	Service-Learning Course	No	Rural	76	42
Hillside High School (Upland, CA)	Environmental Science Program integrated into science classes in an alternative school for at-risk students. Students develop a science curriculum focusing on local environmental efforts (reforestation, etc.), teach in all the 4th grade classrooms in the district, and build teaching kits for other schools.	Academic Class/ Alternative School	Yes	Suburban	35	35
Vista High School (Bakersfield, CA)	Service integrated into an English class in an alternative school for at-risk students. Students provide tutoring and recreation for homeless children for 1-2 hours per day after school.	Academic Class/ Alternative School	Yes	Urban	40	128
Menasha High School (Menasha, WI)	One semester service-learning course in the Social Studies Department. The major service effort is focused on the Legacy Park Project, an environmental learning center developed by the school. Over several years, students are designing the park, creating learning stations, and providing instruction to other students.	Service-Learning Course	Yes	Urban	59	79

Source: Site visit information and student service rosters.

[a] Schools where Learn and Serve Program was part of broad, school-wide commitment to community service or service-learning.
[b] Average hours per student during program participation (school year or semester), based on average reported service hours for students in analysis sample.

Exhibit 1.2
PARTICIPANT CHARACTERISTICS AT EVALUATION SITES

Participant Characteristics	All Participants	High School	Middle School
Gender			
Male	40%	38%	45%
Female	60%	62%	55%
Race/Ethnicity			
White	58%	59%	53%
African-American	17%	8%	39%
Hispanic	19%	25%	3%
Asian	2%	3%	0%
Native American	1%	1%	1%
Multicultural	3%	3%	3%
Other	0%	0%	1%
English spoken at home	95%	95%	96%
Economically disadvantaged	38%	29%	59%
Educationally disadvantaged	30%	24%	45%
Involved in delinquent behavior in past 6 months	29%	25%	38%
Participated in a service-learning class in a prior year	45%	44%	48%
Number	608 (100%)	435 (72%)	173 (28%)

Source: Baseline survey of participants in the 17 evaluation sites (435 high school students, 173 middle school students).

CHAPTER TWO

THE PROGRAM EXPERIENCE IN THE EVALUATION SITES

At the core of the Learn and Serve program is the idea of service-learning. As defined in the legislation, service-learning combines meaningful service in the community with a formal educational curriculum and structured time for participants to reflect on their service experience. Service-learning stands in contrast to traditional voluntarism or community service, which generally does not include reflection or links to any organized curriculum.[1]

As noted in Chapter One, the Learn and Serve evaluation is focused on sites that meet the basic set of criteria for high quality, fully-implemented service-learning. All of the sites involve students in higher than average service hours and all conduct regular reflection and writing. The programs are all school-based and linked to an academic curriculum. While the programs vary in structure and format, all offer a relatively intensive, hands-on involvement in service and an opportunity to "process" the service experience through formal and informal group discussions, journal writing, research papers, and group presentations.

Exhibits 2.1 through 2.3 provide an overview of the characteristics of the service experience in the evaluation sites and help to give some shape to the service-learning experience of participants in the study. Exhibits 2.1 and 2.2 are based on information from the post-program participant surveys and service rosters; Exhibit 2.3 is based on information compiled during site visits.

As Exhibit 2.1 shows, on average, students in the evaluation sites were involved in substantial hours of direct service. While the hours for individual programs varied widely, from an average of 3 hours of direct service per student in one program to nearly 200 hours in another, the average for the evaluation sites as a whole was over 70 hours, more than two times the median among the national sample used to select the evaluation sites.[2] For most students, service was in educational or human

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[1] The National and Community Service Trust Act defines service-learning as a method: "(A) Under which students or participants learn and develop through active participation in thoughtfully organized service that—(i) is conducted in and meets the needs of a community; (ii) is coordinated with an elementary school, secondary schools, institutions of higher education, or community service programs, and with the community; and (iii) helps foster civic responsibility; and (B) that (i) is integrated into and enhances the academic curriculum of the students, or the educational components of the community service program in which the participants are enrolled; and (ii) includes structured time for the students and participants to reflect on the service experience." (U.S. Code Title 42, Section 12511)

[2] The average hours per student are for the program period, generally a school year (two of the seventeen programs were one semester only). It is worth noting that several of the programs ultimately reported fewer service hours than were indicated in the program descriptions used for site selection. In some cases the differences represent changes made in the program during the course of the 1995-96 school year. In most cases, however, the difference reflects the difficulties of defining and measuring service hours in an integrated program (for example, preparation time for a public event can count as classroom or service time). The service hours reported here are those hours in which students were actually performing/delivering services.

Exhibit 2.1
CHARACTERISTICS OF SERVICE-LEARNING EXPERIENCE IN EVALUATION STUDY SITES

Characteristic	Overall	High School	Middle School
Average Hours of Direct Service Per Participant	77 hrs.	86 hrs.	53 hrs.
Types of Service[a]			
Education	65.5%	67.8%	56.1%
Human Need	59.2%	63.9%	46.8%
Environment	38.2%	34.3%	48.0%
Public Safety	23.0%	22.1%	25.4%
Service activities were mostly:[b]			
Directly helping other people	43.4%	49.9%	27.2%
Indirectly helping other people	21.5%	15.6%	36.4%
Both types of activities in equal amounts	32.1%	30.8%	35.3%
Work was conducted:			
As part of a team	28.2%	24.0%	38.4%
Individual assignment	11.8%	12.6%	9.9%
Combination of individual and team assignments	60.0%	63.4%	51.7%
Kept a journal or diary as part of community service project	44.4%	50.8%	28.1%
Community service project included time in class to talk about service experience	75.9%	77.7%	71.3%

Sample Sizes: Overall analysis sample: 608; high school: 435; middle school: 173. Sample sizes for individual items vary slightly due to item nonresponse.

[a] Percentages do not sum to 100 because participants engaged in multiple service activities.

[b] Direct service activities were those in which students had direct, face-to-face contact with service recipients. Indirect activities included activities such as fundraising, food and clothing drives, recycling, or park improvement.

services-related projects—for example, tutoring or working as a teacher's aide, working in a nursing home or homeless shelter.

The service also involved at least some hands-on, face-to-face experience with recipients. The large majority of students (75.5%) had at least some direct contact with service recipients, meeting students or senior citizens face-to-face. Fewer than 25% of the participants were in programs where service projects were solely indirect in nature (such as food drives or park clean-up). Most students (60.0%) also experienced a combination of individual and group service assignments—each of which has its strengths (for example, group projects can teach teamwork, individual assignments can help reinforce personal responsibility). Less than one third of the students did service only in a group, and less than 12% had only individual placements.

Service also involved reflection. Seventy-six percent of the participants reported that their classes included time set aside to discuss their service experiences, and 44% reported keeping a journal. Many of the programs also used other forms of written reflection (essays, research papers, presentations) not captured by the survey questions.

Exhibit 2.2
CHARACTERISTICS OF SERVICE EXPERIENCE
(Percent responding "very often" or "fairly often")

Characteristics	Overall (Percent)	High School (Percent)	Middle School (Percent)
Had real responsibilities	79.4	81.1	75.1
Felt I made a contribution	78.2	81.1	71.0
Did things myself instead of observing	66.4	72.3	51.8
Had a variety of tasks to do at site	69.9	70.7	68.0
Had freedom to develop and use my own ideas	65.1	68.3	57.4
Had freedom to explore my own interests	61.7	63.0	58.6
Adults at site took a personal interest in me	59.0	62.4	50.3
Had challenging tasks	59.0	58.7	59.8
Made important decisions	59.1	56.9	64.5
Discussed my experiences with teachers	52.6	55.1	46.2
Needed more help from my supervisor	11.4	9.8	15.4
Adults criticized me or my work	7.5	5.8	11.9
Discussed my experiences with family and friends	60.6	63.9	52.7

Sample Sizes: Overall: 608; High School: 435; middle school: 173. Sample sizes for individual items vary slightly due to item nonresponse.

Exhibit 2.2 presents additional background on the students' service experience, based on a second set of questions in the post-program survey, and confirms a relatively high quality experience for the majority of program participants. Over 70% of the participants felt they had real responsibilities, did things themselves, had a variety of tasks, and made a contribution "very often" or "fairly often." The majority of participants also felt they made important decisions, discussed their experiences with teachers, family, and friends, had the freedom to develop their own ideas, and gained the personal interest of the adults with whom they worked. It is important to note that middle and high school participants report similar experiences. This contrasts sharply with the findings in the Serve-America evaluation, in which the middle schools clearly presented a much less intensive, hands-on program experience than either the high school programs in that evaluation or the middle and high school programs in this study.[3]

Finally Exhibit 2.3 suggests some of the ways in which programs organized their service-learning and integrated service into academic and elective courses. As is clear from the snapshot descriptions, programs organized their activities in many different ways, but each built in substantial time for reflection and opportunities to make connections to the curriculum.

Taken together, the data on the experience of program participants in the evaluation sites helps to set the context for understanding the participant impacts. Though the evaluation sites did vary among themselves in terms of the intensity and structure of the service-learning experience, as a group they represent a relatively strong effort to implement the ideal of service-learning.

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[3] See Melchior and Orr, *Final Report: National Evaluation of Serve-America*, Chapter 4.

Exhibit 2.3

OVERVIEW OF SELECTED EVALUATION SITES

The **SITES program** at North Olmsted High School (Ohio) combines English, social studies, and service-learning into a single half-day block of classes. Two days a week students are in class for the full 3-period block. Three days a week students are in class for one period and work at their service sites for the other two periods, averaging 4-5 hours of service per week. In the social studies classes, the class links academics and service through a series of research papers and presentations on topics related to students' service sites (for example, students working in hospitals or nursing homes researched the national health care debate). The English class is linked to service through its literature readings (for example, *The Jungle* and *Walden II*), which focus on the relationship of "man and society."

In the **Social Issues program** at Taos High School (New Mexico), students identify, study, and address local issues through small group projects which range from training as drug education counselors for the elementary school to sponsorship of a student/police basketball game as part of an anti-violence campaign. Students write about and discuss their projects and their role in the community through weekly reflection exercises designed by the course instructors. In 1995-96, the teachers added an "introductory service-learning project," in which students performed service for family members and friends and wrote about the experience, as a way of introducing the service concept to students with no prior experience as volunteers.

East Scranton Intermediate School (Pennsylvania) has a school-wide service philosophy and developed an interdisciplinary 8th grade class focused on service-learning. Their major service activity is focused on a local hospital, where students work in a variety of departments. Students also work together on a variety of small group projects tied to academic subjects. Students participate in service three out of every six afternoons, totalling more than 200 hours over the course of the school year.

At **Wakulla Middle School** (Florida), service-learning is integrated into the alternative education program for at-risk students. Every other week students in the at-risk program, along with high achieving students, work for half a day with staff from the Park and Recreation Department to revitalize a neighborhood park. Students work in small groups on tasks that reinforce social and behavioral skills (for example,working in groups), as well as some academic skills (measuring, reading instructions, etc.). Each service session is followed by an organized group discussion. Teachers in the alternative education program then use the park experience over the year in illustrating lessons in the classroom.

At **Scotia High School** (New York), the GIVE program is an elective service-learning course that operates on a quarterly basis. Students can enroll for one or more academic quarters—up to a maximum of sixteen. Each student attends the GIVE class once each week (the class itself is offered three times a week—before, after, and during school—so that every student can attend), and provides two or more hours of direct service every week. Service activities range from one-to-one support for elderly residents (students make daily calls to check on their elderly partner), to volunteer work at a range of local human service agencies. Reflection takes place through the weekly class discussions and a weekly "reflection document" (similar to a journal) which is reviewed by the teacher and which students share to spark discussions in class.

CHAPTER THREE

PARTICIPANT IMPACTS

The primary goal of the Learn and Serve program is to help young people develop as responsible citizens, improve their academic skills, and develop as individuals through involvement in meaningful service linked to structured learning activities. Because of this, three basic questions guide the participant impact evaluation:

1. ***What was the impact of service-learning on participants' civic development?*** Did service-learning help to build students' understanding of their communities, their sense of social responsibility, and their commitment to community involvement?
2. ***What was the impact on educational development and academic performance?*** Did service-learning increase students' engagement in school, school attendance, and/or academic performance?
3. ***What was the impact of service-learning on students' personal and social development?*** Did service-learning help strengthen students' life skills (such as communications skills, work orientation, and career awareness), and did it lead to a reduction in involvement in risk behaviors?

To address these questions, the evaluation examined participant impacts at two points in time. First, the evaluation examined participant impacts at the end of the 1995-96 program year to identify short-term, "post-program" impacts—those impacts that were evident immediately following program participation. The evaluation then conducted a follow-up study in the spring of 1997 to examine the longer-term impacts of program participation. In both cases, the assessment of participant impacts was based on a combination of participant surveys (at baseline, post-program, and at follow-up) and data drawn from school records. Finally, the evaluation team also collected information on participants' responses to their programs and their service experiences through the post-program surveys and through interviews conducted with the students at the end of the 1995-96 program year.

The purpose of this chapter is to report on the post-program impacts on program participants. (Findings on the impacts at follow-up are reported in Chapter 4, and participant assessments are discussed in Chapter 5,) Two major findings are reported here:

1. ***Based on the data from the 1995-96 school year, the Learn and Serve programs in this study had a positive, statistically significant post-program impact on measures of civic attitudes and behavior and on several measures of educational attitudes and school performance.*** There were no consistent impacts on measures of personal and social development—though there are scattered and marginal impacts that do suggest that service-learning can be beneficial in this area as well.[1]

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[1] For the purposes of this study, impacts are considered statistically significant if they are significant at the .05 level or higher. However, we do report and discuss impacts that are "marginally significant" (that is, significant at the .10 level) though they are not considered as reliable as the results with higher levels of significance.

2. ***Post-program impacts were shared relatively equally by a wide range of participating youth*** (white and minority youth, males and females, educationally and economically disadvantaged youth, etc.) While some groups showed stronger impacts in one area or another (for example, minority students showed relatively strong impacts on grades), there were no consistent differences in impacts among the subgroups, and most of the positive post-program impacts were shared across the board.

This chapter reviews the short-term participant impacts in the seventeen evaluation sites. It begins by providing a brief overview of the data sources and study's approach to measuring post-program impacts. It then reviews the post-program impact findings for the participant group as a whole and for the two primary subgroups: middle school and high school participants. Finally, the chapter examines the differences in impacts among other major subpopulations in the study.[2]

MEASURING POST-PROGRAM PARTICIPANT IMPACTS

To measure the short-term, "post-program" impact of the Learn and Serve programs in the study on program participants, the evaluation administered pre- and post-program surveys to a sample of participants and a comparison group in each of the evaluation sites and analyzed school record information for both groups. In the smaller sites, all of the program participants were included in the evaluation; in the larger, school-wide sites, one or more classrooms were selected for survey purposes.[3] Comparison group members were generally students in similar types of classes in the same school (e.g. core academic or elective), matched as closely as possible with participants in terms of demographic characteristics (age, gender, race/ethnicity, etc.) and academic status. In several instances where program activities were school-wide, the comparison groups were drawn from similar schools in the same or neighboring communities. Altogether, the analysis sample for the post-program impacts includes 1,052 students for whom both baseline and post-program survey and school record data are available. Of these, 608 were program participants and 444 were comparison group members; 733 of the students were high school-aged and 319 were middle school students. Exhibit 3.1 provides an overview of the analysis sample. The analysis sample and impact estimation methods are also discussed in more detail in Appendix B.

The surveys and school records used in the study incorporated over 20 different outcome measures, including measures of civic and social attitudes, involvement in volunteer activity, educational attitudes and performance, and measures of involvement in risk behaviors. The measures reported in the study are listed in Exhibit 3.2 and described in Appendix C.

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[2] This chapter includes a substantial revision of the analysis of post-program participant impacts first reported in the evaluation's interim report (Melchior *et al*, *National Evaluation of Learn and Serve America, School and Community-Based Programs, Interim Report*, April, 1997), with some changes in that report's conclusions based on use of a different set of statistical techniques. The findings in this report should be considered as superseding those of the interim report.

[3] Sample classes were selected in three of the sites: Sierra Ridge Middle School, Futures Academy, and Caprock High School. In all three sites an effort was made to identify classes that met the overall selection criteria for the study (e.g. in existence for more than one year, higher than average hours, regular reflection and writing). At Caprock, the study focused on 9th grade classes to minimize the effects of prior participation in the program.

Exhibit 3.1
OVERVIEW OF POST-PROGRAM IMPACT ANALYSIS SAMPLE

	Participant Group	Comparison Group	Total
Middle School	173	146	319
High School	435	298	733
Total	608	444	1,052

Source: Participants and comparison group members with matched pre- and post-program surveys and school record information.

In general, program impacts were estimated by comparing the average outcomes for program participants with those of comparison group members after making adjustments through a regression formula for differences in both baseline scores and the baseline characteristics of the two groups. By taking into account the initial differences between participants and comparison group members, the regression analysis allows us to isolate the estimated impacts of service-learning from those that might be caused by other differences between the two groups.

In the course of the evaluation, two different statistical techniques were used to estimate the program impacts. The initial analysis, reported in the evaluation's interim report, used an analysis of covariance approach which adjusted for differences in baseline scores by including those scores as a separate variable in the regression formula. In this approach, baseline scores are treated like other covariates in the regression formula (for example, age, gender, etc.). The "outcome" that is estimated is the post-program score as adjusted for differences in both baseline scores and participant characteristics. This was the method used in the earlier evaluation of Serve-America and has been commonly used in other evaluations of service-learning programs.[4] In this report, we refer to this approach as the analysis of covariance or ANCOVA model.

In this report, we also use a second method that adjusts for differences at baseline by calculating the *difference* between post-program and baseline scores (that is, post-program score minus baseline score). In this case, the outcome that is estimated is this difference in pre- and post-program scores, and the analysis examines the difference in pre/post changes for participants and comparison group members. We refer to this approach as the difference-in-difference model (or DD model) in this report.[5]

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[4] See, for example, Fred Newman and Robert Rutter, "The Effects of High School Community Service Programs on Students' Social Development," University of Wisconsin, Center for Educational Research, 1983.

[5] In point of fact, both approaches make use of analysis of covariance as a statistical technique. The terms Analysis of Covariance and Difference-in-Difference are simply used to distinguish the two approaches for the purposes of the study.

Exhibit 3.2
OUTCOME MEASURES USED IN THE EVALUATION

Civic/Social Attitudes
- Personal and Social Responsibility (including Welfare and Community Involvement Subscales)
- Acceptance of Cultural Diversity
- Service Leadership
- Civic Attitudes-Combined Scale (Combined scores from Personal and Social Responsibility, Cultural Diversity, and Service Leadership)

Volunteer Behavior
- Involvement in any Volunteer Activity in Past 6 Months
- Estimated Hours of Volunteer Service in Past 6 Months

Educational Impacts
- Educational Competence
- School Engagement
- Course Grades (English,Social Studies, Math, Science)
- Overall Grade Point Average
- Core Grade Point Average
- Failed 1 or More Courses
- Days Absent
- Days Suspended
- Educational Aspirations (Graduate 4 Year College)
- Homework Hours (3 or More Hours per Week)

Social Development
- Communications Skills
- Work Orientation

Involvement in Risk Behaviors
- Consumed any Alcohol in Past 30 Days
- Used Illegal Drugs in Past 30 Days
- Arrested in Past 6 Months
- Ever Pregnant or Made Someone Pregnant
- Fought, Hurt Someone, or Used Weapon in Last 6 Months

Among statisticians today there is some debate as to the relative strengths and weaknesses of the two approaches and when it is most appropriate to use each. In general, it is now believed that the ANCOVA model, by adjusting for differences in baseline scores through the regression calculation, tends to *underadjust* for differences at baseline. As a result, when program participants score more highly at baseline (which is the case for most measures in this study), the ANCOVA model is likely to *overstate* program impacts. The difference-in-difference model, which adjusts for differences at baseline by simply subtracting baseline from post-program scores is now thought to provide a more unbiased estimate.[6] For this report, because of the previous work using the ANCOVA model, we are providing results from both approaches. However, generally the evaluation will rely on the results of the difference-in-difference model as the more "conservative" estimate of program impacts. Appendix B provides a detailed technical discussion of the two approaches and the differences in the nature of the estimates they produce.[7]

POST-PROGRAM IMPACTS ON PARTICIPANTS

Exhibit 3.3 presents an overview of the post-program participant impact findings for the participant group as a whole, and separately for participants in high school and middle school programs. Pluses and minuses in the exhibit indicate a positive or negative impact. There were no statistically significant negative impacts found among the post-program impacts in the study.[8]

Impacts on Civic/Social Attitudes

Based on the results of the pre- and post-program surveys, the Learn and Serve programs in the study had a small but statistically significant positive impact on the civic attitudes of participants. As the first section of Exhibit 3.3 shows, Learn and Serve participants showed positive, statistically significant post-program impacts on three of four measures of civic development using the difference-in-difference approach: acceptance of cultural diversity, service leadership, and the combined measure of civic attitudes. Only the social and personal responsibility scale failed to show a significant impact. When the analysis of covariance approach is used, the impacts are even broader, with all the measures of civic attitudes showing strongly significant positive impacts.

When high school and middle school students are looked at separately, both high school and middle school students show a broad array of impacts under the analysis of covariance model, with positive and statistically significant impacts across most of the measures of civic attitudes. With the difference-in-difference approach, the high school impacts are still relatively strong, with significant impacts on service leadership and the combined civic attitudes scale and a marginal impact on attitudes towards diversity. Middle school students, in contrast, show some gains in the measures of civic attitudes under the difference-in-difference model, but none are statistically significant.

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[6] It is worth noting that where participant scores are *lower* at baseline, the ANCOVA model tends to bias impacts downward -- to *underestimate* impacts. In both cases, this is because the regression formula only partially adjusts (i.e. underadjusts) for the differences at baseline.

[7] We are greatly indebted to Dr. Christopher Winship for his help in working through the differences between the two models. Two publications that provide excellent discussions of these issues are: Charles Judd and David Kenny, *Estimating the Effects of Social Interventions* (Cambridge: Cambridge University Press, 1981), especially Chapter 6; and Paul Allison, "Change Scores as Dependent Variables in Regression Analysis," *Sociological Methodology*, v. 20 (1990), 93-114.

[8] The results of the impact analyses are displayed in detail in Appendix D.

Exhibit 3.3
SUMMARY OF POST-PROGRAM PARTICIPANT IMPACTS

Characteristic	**All Participants**		**High School Participants**		**Middle School Participants**	
	Analysis of Covariance	**Difference -in- Difference**	**Analysis of Covariance**	**Difference -in- Difference**	**Analysis of Covariance**	**Difference -in- Difference**
Civic/Social Attitudes						
Personal and Social Responsibility						
Social Welfare Subscale	+++		++		++	
Community Involvement Scale	+++		+++		+++	
Total Personal and Social Responsibility Scale	+++		+++		+++	
Acceptance of Cultural Diversity	+++	++	+++	+	+	
Service Leadership	+++	+++	+++	+++	+++	
Civic Attitudes-Combined Scale	+++	+++	+++	+++	+++	
Volunteer Behavior						
Volunteered for a Community Organization or Got Involved in Other Community Service in Last 6 Months	+++	+++	+++	+++	+++	+++
Average Hours Doing Volunteer Work or Community Service in Last 6 Months	+++	+++	+++	+++	+	
Educational Impacts						
Educational Attitudes						
School Engagement	+++	+++	+++	+++	++	
Educational Competence	+		+			
Course Grades						
English						
Math	+++	+++	++	++	+++	
Social Studies	+++				+++	++
Science	++	+		+	++	

[a] +/- indicates positive or negative impact. + is statistically significant at the 0.10 level; ++ at the .05 level; +++ at the .01 level (two-tailed test).

-continued-

Exhibit 3.3
SUMMARY OF POST-PROGRAM PARTICIPANT IMPACTS (CONTINUED)

Characteristic	All Participants		High School Participants		Middle School Participants	
	Analysis of Covariance	Difference -in- Difference	Analysis of Covariance	Difference -in- Difference	Analysis of Covariance	Difference -in- Difference
Educational Impacts *(continued)*						
Overall/School GPA	+					
Core GPA	+++	+			+++	
Fail 1 or More Courses	+		+	++		
Days Absent						
Suspended During Previous Semester						
Want to Graduate 4-Year College or Beyond	++		+			
Homework Hours: 3 Hours or More Per Week						
Social Development/Involvement in Risk Behavior						
Psychosocial Maturity						
Communications Skills Subscale						
Work Orientation Subscale			++			
Consumed Any Alcohol in Last 30 Days						
Used Illegal Drugs in Last 30 Days						
Arrested in the Last 6 Months						++
Ever Pregnant or Made Someone Pregnant	+	+				+
Fought, Hurt Someone or Used Weapon in the Last 6 Months			+			

[a] +/- indicates positive or negative impact. + is statistically significant at the 0.10 level; ++ at the .05 level; +++ at the .01 level (two-tailed test).

[b] Core GPA is calculated as the average of English, Math, Social Studies, and Science Grades.

[c] Three (3) programs were excluded from the analysis of days absent due to incomplete reporting.

[d] Seven (7) programs were excluded from the analysis of suspensions due to incomplete reporting.

Source: Impacts on "All Participants" is based on analysis of baseline and post-program surveys of 608 program participants and 444 comparison group members (N=1052). High school impact analysis is based on 435 high school participants and 298 comparison group members (N=733). Middle school analysis is based on 173 participants and 146 comparison group members (N=319)

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While in most instances this report will rely on the difference-in-difference approach for its interpretation, it is worth looking at both sets of results for the measures of civic and social attitudes. In those cases where the outcome being measured is likely to have influenced selection into the program (for example, where students with initially strong civic attitudes were likely to select into service-learning classes), the ANCOVA model is likely to overestimate impacts, but the difference-in-difference model is also likely to underestimate impacts. In essence, for civic attitudes, we need to consider the two models as providing high and low end estimates of the program impact, with the "true" impact somewhere in between.[9]

In practical terms, the fact that both the "conservative" difference-in-difference model and the more "generous" ANCOVA model show significant impacts on a number of the measures of civic attitudes gives substantial weight to the conclusion that the Learn and Serve programs are having an impact on participant attitudes. At the very least we know that, for the participant group as a whole, the programs are making a difference on attitudes concerning cultural diversity and service leadership, as well as on a combined measure of civic attitudes; it is possible, but somewhat less certain, that the service-learning programs are also affecting attitudes towards personal and social responsibility.

While it is clear that Learn and Serve programs are having a positive impact on civic attitudes, it is also important to recognize that, whatever the method used in the analysis, these impacts are generally small: the largest, service leadership, shows only a 5% difference between participants and comparison group scores in the difference-in-differences approach; the difference is still only 8.4% under the analysis of covariance. In part, the relatively small size of the impacts reflects that fact that most young people begin with a fairly well-developed sense of civic responsibility (both participants and comparison group members scored highly at baseline on these measures). In that regard, service-learning programs might best be understood as strengthening or reinforcing students' generally positive civic attitudes rather than building a positive set of attitudes from scratch.

Finally, it is worth noting that, for high school participants and the participant group as a whole, the largest impact on civic attitudes was on the measure of service leadership, which was the most direct measure of student attitudes towards service itself. The questions in that measure focused less on general attitudes and more on the degree to which students felt they were aware of needs in the community, believed that they could make a difference, knew how to design and implement a service project, and were committed to service now and later in life. In this instance, the service experience appears to have affected student attitudes most directly, providing a boost in students' understanding of the service task and their confidence in their ability to continue it.

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[9] The differences between the two models reflect different statistical assumptions about measurement error and the likelihood of regression toward the mean in the scores of the participant and comparison group. In essence, the ANCOVA model assumes that, in this instance, students may have felt unusually "civic minded" at the point in which they selected into a service-learning program, and that on average, their sense of civic mindedness was usually somewhat less. In that instance, the ANCOVA model assumes that the "true" baseline score is really somewhat lower, and that in the absence of any program, participant and comparison group scores would likely converge to a degree (regress to the mean). The adjustment for the baseline score in the regression calculation takes this assumption into account and adjusts the post-program outcome by less than the full value of the baseline score. The difference-in-difference model assumes that there is no regression toward the mean and, by subtracting the baseline from the post-program score, gives the baseline score full weight as an adjustment. In the case of civic attitudes, where the outcome being measured is likely to have directly affected selection, there is a much stronger case to be made that at least some regression toward the mean is likely. If so, by giving the baseline score full weight (in effect *over*adjusting for baseline differences), the difference-in-difference method is likely *under*stating the real program effect. In this instance, then, it is useful to view the two methods as representing high and low estimates. Again, see the discussion of the two methods in Appendix B for a number of specific examples of the differences in the estimates produced by the two methods.

Impacts on Volunteer Behavior

The Learn and Serve programs also had a significant positive impact on involvement in volunteer service during the program period for all the program participants. Program participants were significantly more likely to have been involved in some form of volunteer service and to have contributed more hours of service during program participation than students not enrolled in the program (see the second panel in Exhibit 3.3). Overall, participants were nearly 20% more likely to have been involved in some form of service activity during the previous six months than comparison group students, and to have provided more than twice as many hours of service as comparison group members during that time period (an average of 73 hours of service versus 32 hours for comparison group members).

The impacts on volunteer behavior were most evident among high school participants, with a more limited impact on students in middle school programs. Among high school students, participants were 18% more likely to have been involved in service and provided more than three times more volunteer hours than comparison group members (78 hours vs. 25 hours). Middle school participants were 20% more likely to have been involved in service, but provided only 1.4 times as many hours as comparison group members, a difference that was not statistically significant.

At one level, it is not surprising that participants in a service program should have more volunteer hours than non-participants. But it is important to view these findings in context. National surveys indicate that 61% of American teenagers perform at least some volunteer work in the community each year, so that both comparison group members and participants are likely to have some volunteer experience — indeed, 75% of the comparison group members indicated involvement in at least one form of volunteering at baseline.[10] What the findings on volunteer hours and participation in this study show is that service-learning programs were not simply diverting students from volunteer service that they would otherwise normally be doing. Instead, the data support the argument that students in service-learning programs were more likely to be involved in volunteer service as a result of program participation, and that they provided significantly more hours of service than young people who were not enrolled.

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[10] Baseline measures for participants and comparison group members are reported in Appendix B. For national figures on volunteering, see The Independent Sector, *Volunteering and Giving Among American Teenagers 12 to 17 Years of Age: Findings from a National Survey*, (Washington, D.C.: The Independent Sector, 1992).

Impacts on Educational Attitudes and Performance

The Learn and Serve programs also had positive short-term effects on participants' educational attitudes and school performance, though only on a few of the measures examined in the study. For the participant group as a whole, the Learn and Serve programs produced positive, statistically significant post-program impacts on two measures — school engagement and math grades — and marginally significant impacts (at the .10 level) for science grades and core grade point average (English, math,science,social studies grades combined). There were no impacts on English and social studies grades, or on measures of course failure, absenteeism, homework hours, or educational aspirations.

As with most of the other measures, high school students showed a slightly broader pattern of significant impacts than middle school students, with strongly significant impacts on school engagement and math grades and a marginally significant impact on science grades. High school students also showed a substantial, statistically significant reduction in course failures, with participants 65% less likely than comparison students to have failed one or more courses during the most recent semester. Middle school students showed positive increases in social studies (18%), math (12%), and science grades (6%) and core GPA (9%). But the social studies increase was the only one that was statistically significant.[11]

As was the case with the measures of civic attitudes, the ANCOVA analysis does indicate a stronger, more widespread pattern of impacts on educational measures, with impacts on math, social studies, and science grades, core grade point average, as well as educational aspirations. However, in this instance, there is less reason to believe that academic performance figured largely in student decisions to select a service-learning program, and the difference-in-difference estimates are likely to provide a less biased overall estimate. To the extent that school attitudes and performance did figure into the decision to participate, the difference-in-difference estimates can be considered lower bounds.

The limited nature of the educational impacts makes it difficult to conclude that service-learning is having a strong positive impact on students' educational experience. However, the fact that there are impacts on school engagement and small impacts on both individual course grades and core GPA for the participant group as a whole does suggest that service-learning is having some degree of positive influence on school performance while students are in the program. The most likely explanation is that increased student engagement is translating into increased attention and effort at school. In that regard, it is interesting to note that the biggest increases are taking place in math classes — the subject that students often find least attractive, and the course with the lowest average grades at baseline.

As with civic attitudes, where educational impacts are evident, they are relatively small — a 10% increase in math grades, a 6.5% increase in science, and a 4% increase in core GPA. The change in math grades, for example, represents a increase from a solid C to a C+ (i.e. from a 2.26

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[11] The fact that positive impact on grades were evident at high school and not at middle school may reflect the smaller middle school sample size. Information on grades was available for 233 middle school students vs. 500-600 high school students.

average to 2.48). On other hand, given that comparison group students are also in school and receiving educational services, even modest impacts can be meaningful. When the various measures are taken together, they do suggest that service is helping students to be somewhat more engaged in school and, perhaps as a result, do slightly better in their classes. At the same time, it is clear that for the participant group as a whole, involvement in service-learning does not promote substantial changes in school performance.[12]

Social and Personal Development

The one area in which there are no statistically significant post-program impacts for participants as a whole was on the measures of personal and social development, which include measures of perceived communications skills, work orientation, and involvement in risk behaviors. The only impact evident for the whole group was a marginally significant impact on teenage pregnancy. There are also no significant impacts for high school students.

For middle school students, however, there is some evidence of impact on involvement in risk behaviors, with a marginally significant impact on teenage parenting and a substantial, statistically significant impact on arrests for middle school youth. The fact that there are impacts on two risk measures for middle school students suggests that for these younger students, involvement in a well-organized service-learning program may play a role in reducing *some* kinds of risk behaviors, though not all (there was no impact on reported alcohol consumption, drug use, or delinquent behaviors).

Similarly, while none of these findings support an argument that service-learning by itself is an effective preventative for at-risk behavior, the marginal impact on teenage parenting for middle school students and participants as a whole lends some support to the notion that service-learning can contribute to a multi-faceted intervention. A growing number of programs for at-risk youth have incorporated community service or service-learning into their overall design, and evaluations of several of those programs have shown a significant reduction in some risk behaviors, including teenage parenting. When coupled with those evaluations, the data from this study suggest that, while service alone is not likely to dramatically reduce involvement in risk behaviors, service may contribute to the effectiveness of programs targeted to reducing at-risk behaviors among school-aged youth.[13]

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[12] As will be discussed later in this chapter, for some subgroups of participants the impacts on academic performance were larger. Among minority youth, for example (Black, Hispanic and other non-white students), the increase in math grades averaged 22%, the increase in science grades was 14%, and the increase in core GPA was nearly 10%. All three of these were significantly greater than the increases shown by white students. Educationally disadvantaged students saw 15% increases in math and social studies grades, and young women saw an increase of 17% in their math grades. While these differences are scattered, they do suggest that while students on average may experience a small improvement in school performance through service-learning, some students are likely to benefit more substantially.

[13] Two of the programs that have been studied that incorporate service into their program design and have had an impact on teenage pregnancy are the Teen Outreach Program (TOPS), a national pregnancy prevention program founded by the Junior League, and the Quantum Opportunities Program (QOP), a multi-site dropout prevention initiative managed by the Opportunities Industrialization Centers of America and funded by the Ford Foundation. See

IMPACTS ON SUBGROUPS

In addition to the analysis of impacts on participants as a whole and on middle and high school students, the evaluation also examined post-program impacts for a number of subgroups in the study, including males and females, white and minority students, economically and educationally disadvantaged students, students involved in one or more risk behaviors at baseline, and students with and without prior volunteer experience or participation in prior service-learning programs. The purpose of the analysis was to identify any groups that appeared to particularly benefit (or fail to benefit) from service-learning compared to other students. In each instance, we examined the outcomes for complementary pairs of subgroups (for example, males and females) to see if there were significant differences between the impacts for the two groups, as well as examining the impacts on each group individually.[14]

Exhibit 3.4 provides an overview of those measures that showed significant differences in post-program impacts between pairs of subgroups (that is, where the impact for one group was significantly higher or lower than that of its complementary group). Though there are a number of instances where there are differences in impacts between groups, there are few instances where one group shows consistently stronger impacts, and in many case, the differences between groups are only marginally significant. In general, no one group seems to be consistently more likely to benefit from service than another.

While there are no across-the-board differences in impacts between subgroups, some differences do stand out. As noted earlier, minority (non-white) students show significantly stronger impacts on measures of academic performance than do white students. These include significantly stronger impacts on math and science grades and core grade point average, as well as a marginally stronger impact on course failures. Young women also show stronger impacts on several education-related measures (Math grades, GPA, and college aspirations), and students who were involved in at-risk behavior (alcohol or drug use, etc.) at baseline appear to experience slightly stronger impacts on several measures of civic and social attitudes.

Though these differences suggest that some groups may benefit on some impacts more than others, the broader finding is that the benefits of participation in service-learning appear to cut across all the various subgroups relatively evenly. Exhibit 3.5 shows the impacts on individual subgroups for those measures where there were positive post-program impacts for participants as a whole. As that exhibit shows, the impacts of service-learning appear to take place across the board, with most of the subpopulations showing positive impacts on most of the measures. Of particular note is the fact that participation in service-learning appears to have an impact not only on first-time participants, but

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Joseph Allen, S. Phillaber, and N. Hoggson, "School-Based Prevention of Teenage Pregnancy and School Dropout: Process Evaluation of the National Replication of the Teen Outreach Program," *American Journal of Community Psychology*, 18 (1990), 505-524; and Andrew Hahn and Janet Reingold, *Quantum Opportunities Program: A Brief on the QOP Pilot Program*, (Waltham, MA: Brandeis University, Heller Graduate School, September, 1995).

[14] The results presented here are based on the difference-in-difference analysis. The detailed post-program results from the subgroup analysis using both the difference-in-difference analysis and an analysis using the ANCOVA model are presented in Appendix E.

Exhibit 3.4
SUMMARY OF SUBGROUP ANALYSES
POST-PROGRAM IMPACTS
(Difference-in-Difference Model)

Subgroups	Measures with Significant Differences in Impacts Between Groups	Level of Significance[a]	Subgroup with Stronger Impacts
Educationally Disadvan./ Non-Disadvantaged	School Engagement	**	Educationally Disadvantaged
	Social Studies Grades	*	
Economically Disadvantaged/ Non-Disadvantaged	Service Leadership	***	Econ. Disadv.
	Civic Attitudes-Combined Scale	**	Econ. Disadv.
	Engaged in Volunteer Service	**	Econ. Disadv.
	Communications Skills	*	Non-Disadv.
	Fought, Hurt Someone, or Used Weapon	**	Non-Disadv.
Female/Male	Math Grades	**	Female
	Overall GPA	*	Female
	College Aspirations	**	Female
	Communications Skills	**	Female
White/Minority	Educational Competence	*	White
	Math Grades	**	Minority
	Science Grades	**	Minority
	Core GPA	**	Minority
	Course Failures	*	Minority
	Suspensions	**	White
	College Aspirations	**	White
	Fought, Hurt Someone, or Used Weapon	***	White
	Number of At Risk Behaviors	*	White
Middle School/ High School	Course Failures	***	H.S. Students
	Arrested in Last 6 Months	**	M.S. Students
At Risk Behavior (Drink, Use Drugs, Engage in Delinquent Behavior) at Baseline	Social Welfare Subscale	***	At-Risk Students
	Personal and Social Responsibility (Total)	*	At-Risk Students
	Combined Civic Attitudes	*	At-Risk Student
	Communication Skills	**	At-Risk Students
	Work Orientation	*	At-Risk Students
	Arrested in Last 6 Months	*	Non-At-Risk
	Number of At Risk Behaviors	*	Non-At-Risk
Had Been a Volunteer/ Not Been a Volunteer at Baseline	Community Involvement Subscale	***	Volunteers
	Acceptance of Diversity	***	Volunteers
	Engaged in Volunteer Service	**	Non-Volunteers
	Communications Skills	*	Volunteers
	Used Alcohol in Last Month	**	Non-Volunteers
Students in Service Class Last Year/Not in Class	Engaged in Volunteer Service	**	Not in Class
	Days Absent	**	
	Fought, Hurt Someone, or Used Weapon	*	
Students in Service Class Any Prior Year/Not in Class	Volunteer Hours	**	Not in Class

[a] *Statistically significant at the 0.10 level; ** is statistically significant at the .05 level; *** at the .01 level (two-tailed test)

also on students who have participated in programs in prior years. This is consistent with the follow-up findings on participants who continued their involvement in service learning (see Chapter 4) and suggests that students who were involved in service in the past can benefit from continued participation.

Taken together, the post-program impact findings suggest that the service-learning programs studied in this evaluation — programs that represented well-designed, "fully-implemented" initiatives — have a positive impact on participating students while they are involved in the programs. While the impacts are not large, they do represent a strengthening of civic attitudes, increased experience as volunteers, a degree of support and reinforcement for students' involvement in school and their academic performance, and for some students, a positive alternative to involvement in risk behaviors. Given the limited nature of the service-learning "intervention" (a few hours a week, even among the more intensive programs studied here), these kinds of impacts represent an important positive program result.

Moreover, the analysis of impacts among a number of subgroups in the study also indicates that service-learning can benefit a wide variety of student populations, including both advantaged and disadvantaged students, as well as students with and without prior service experience. Those findings help to reinforce the conclusion that service-learning has the potential to benefit a variety of students in an array of different settings and circumstances.

Exhibit 3.5
SELECTED POST-PROGRAM IMPACTS BY SUBGROUP[a]
(Difference-in-Difference Model)

Subgroup	Cultural Diversity	Service Leadership	Engaged in Volunteer Service	Volunteer Hours	School Engagement	Math Grades	Science Grades	Core GPA	Ever Pregnant
Educationally Disadvantaged	+	+++	+++	+++	+++	+		++	
Not Educationally Disadvantaged		+++	+++	+++	++	++			
Economically Disadvantaged	+	+++	+++		+++	++		+	++
Not Economically Disadvantaged			++	+++	+++	+			
Risk Behavior at Baseline	+	+++	+++	+++	++	+	++		
No Risk Behaviors at Baseline		+	+++	+	++				+
Females	+	+++	+++	+++	+++	+++		++	
Males		++	+++	+++	++				
White	+	++	+++	+++	+++				
Minority		+++	+++	+++	+++	+++	+++	+++	
Had Volunteered at Baseline	+++	++	++		+++	++			++
Not Volunteered at Baseline		+++	+++	+++	+++				+
In Service Class Last Year		+++	+	++	+++	+			
Not in Service Class Last Year	+	+++	+++	+++	+++	++	++	++	
In Service Class Any Prior Year		++	+++		+++	++			+
Not in Class Before		+++	+++	+++	+++	+	+		

[a] In the table, +/- indicates positive or negative impact. + is statistically significant at the 0.10 level; ++ at the .05 level; +++ at the .01 level (two-tailed test).

CHAPTER FOUR

PARTICIPANT IMPACTS AT FOLLOW-UP

One of the major questions for the evaluation is what kinds of longer-term impacts can we expect on participants from these types of service-learning programs? To what extent do impacts on civic attitudes and behavior or on educational performance persist in the year after program participation, and do those longer-term impacts differ among young people who continue their participation in service and those that do not.

To address those issues, the evaluation team conducted a one-year follow-up study at the end of the 1996-97 school year, surveying program participants and comparison group members who had been involved in the evaluation during 1995-96 and analyzing school records for those individuals who were still in school.

The major finding from the follow-up study is that most of the impacts evident at the end of the 1995-96 school year had disappeared by the time of the follow-up one year later. The only positive impacts that persisted for the participants as a whole were marginally significant positive impacts on service leadership, school engagement and science grades. The follow-up data also indicate a decline in English grades for participants, though the average English grades for participants remained higher than those of non-participants at the time of the follow-up. As with the post-program impacts, there are only limited differences in impacts among the various subgroups in the study, though several groups (educationally disadvantaged and minority students and those without service-learning experience at baseline) do show relatively strong academic impacts. Impacts at follow-up are significantly stronger for those students who continued their involvement in organized service during the follow-up year than for students who indicated that they had not taken part in any school-based service-learning during follow-up. While the follow-up data provides little support for the idea that short-term involvement in service-learning can have a long-term effect, it does suggest that students who continue their involvement in service over time are significantly more likely to continue to experience the benefits of program participation.

The sections that follow present the findings from the follow-up study. The chapter begins by outlining the methodology used for the follow-up study. It then reviews the impact findings for the participant group as a whole, for those participants who did and did not participate in service in the follow-up year, and for the major population subgroups in the study.

MEASURING IMPACTS AT FOLLOW-UP

To measure the impact of the Learn and Serve programs on students over the longer-term, the evaluation conducted a follow-up study of the program participants and comparison group members who had been included in the analysis of post-program impacts. There were 1,052 students in the post-program analysis sample. An additional 13 participants whose post-program surveys had not been included in the interim analysis were added to the follow-up pool, resulting in a total pool for the follow-up of 1,065 participants and comparison group members.[1]

The follow-up study itself was comprised of an analysis of follow-up surveys administered in person and through the mail to the program participants and comparison group members in the Spring of 1997, and an analysis of school record data for those students still in school in the districts where the evaluation sites were located.[2] The follow-up surveys and school record data collected for the study covered the same range of outcomes as were used in the post-program analysis: civic and social attitudes, volunteer behavior, educational impacts, and personal development/involvement in risk behaviors.

Altogether, the evaluation collected follow-up surveys from 764 participants and comparison group members, an overall response rate of approximately 72%. The response rate was slightly higher for participants than comparison group members; however, both groups responded in significant numbers.[3] Similarly, the response rate was somewhat higher for in-school students than for graduated seniors, though again, a substantial proportion of both groups are included in the follow-up study (see Exhibit 4.1).

Of the 764 students in the follow-up sample, 508 (66.5%) were from the high school sites and 256 (33.5%) were from the middle schools in the study. Exhibit 4.2 provides an overview of the

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[1] The 13 students added to the pool were students from the service-learning program at Sierra Ridge Middle School whose post-program surveys had been lost in the mail. Since the student had participated fully in the program, and had completed the post-program survey in Spring 1996, the evaluation team decided to include them in the follow-up pool.

[2] The survey administration for the follow-up study took place in three ways: (1) For those participants and comparison group members who had not been high school seniors and were presumed to be still in school, local school staff were hired to locate the students and administer the surveys in person; (2) for those students who had been high school seniors in 1995-96 and had presumably graduated, the evaluation mailed surveys to a home address and followed up the mailing with reminder calls to nonrespondents; and (3) after the initial round of surveys was administered to in-school students, a survey was also mailed to any in-school student who had not responded. In most cases, those were students who had moved to another school or community and could not be easily reached by the local staff person.

[3] It is important to note that differences between participants and comparison group members are controlled for in the regression analysis used to measure program impacts. The evaluation did examine the interim impact results to test for possible response/nonresponse bias and found no consistent differences between students who did and did not participate in the follow-up study.

Exhibit 4.1
SURVEY RESPONSE AT FOLLOW-UP

	Potential Follow-Up Pool	Follow-Up Surveys Received	Response Rate (Percent)
Participants	621	460	74.1%
Comparison Group Member	444	304	68.5%
Total	1,065	764	71.7%
In-School Students	755	580	76.8
Graduated Seniors	310	184	59.4
Total	1,065	764	71.7%

final follow-up analysis sample.[4]

Finally, the evaluation also collected information on school grades, attendance, and suspensions for the 1996-97 academic year for those students in the sample who were still in school at follow-up (e.g. students who had not graduated or dropped out the previous year). School record data was available for 596 students (380 high school students and 216 middle school students) in the follow-up sample and form the basis for the analysis of school performance in this chapter.

As with the analysis of post-program impacts, impacts at follow-up were estimated by comparing the average outcomes at follow-up for program participants with those of comparison group members after making adjustments for both baseline scores and baseline characteristics of the two groups. Once again, both the ANCOVA and difference-in-differences approaches were used, and while both sets of results are presented, the analysis relies primarily on the difference-in-differences approach as the more unbiased and "conservative" of the two methodologies.

For the follow-up analysis, the statistical calculations include one additional adjustment that takes into account the fact that some comparison group members took part in organized service programs during the follow-up year. Since the goal of the evaluation is to estimate the effects of

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[4] Throughout this chapter the analysis classifies middle and high school students based on their school level at the time of program participation. Middle school students, for example, are those who were in a middle school program during the 1995-96 program year. By the time of the follow-up, however, a substantial number of students had changed school status: approximately 49% of the students in the follow-up sample who had been in middle school in 1995-96 were in high school at follow-up; 41% of the high school students had graduated high school by the time of the follow-up study. The evaluation did an initial analysis to see if controlling for the transition to high school made a difference in the middle school outcomes (it did not). However, one area for future research may be a closer examination to see if there are significant differences in outcomes among these groups of students.

Exhibit 4.2
OVERVIEW OF FOLLOW-UP ANALYSIS SAMPLE

	Participant Group	Comparison Group	Total
Middle School	152	104	256
High School	308	200	508
Total	460	304	764

Source: Participants and comparison group members with matched baseline and follow-up surveys.

participation in service-learning programs compared to *no* participation, the evaluation needed to adjust the comparison group outcomes to remove the effects of program participation during the follow-up year from the comparison group results.[5] To make that adjustment, the evaluation included an additional variable in the statistical calculations to control for follow-up participation by comparison group members. The impacts reported in the follow-up analysis, then, represent a comparison between program participants (who may or may not have been involved in service during the follow-up period) and comparison group members whose scores have been adjusted to remove any effects of their own program participation.[6]

IMPACTS ON PARTICIPANTS AT FOLLOW-UP

The evaluation examined impacts on participants at follow-up in several stages. First, the impacts were examined for the participant group as a whole and for participants in the middle school and high school programs separately, much as was the case in the analysis of the post-program impacts reported in Chapter 3. This analysis includes the experiences of both students who did and did not participate in organized service programs during the follow-up year and as such might be considered to represent a typical mix of students one year after participation in the target program. Exhibit 4.3 summarizes the results of that analysis for the participant group as a whole, for high school, and for middle school participants.[7]

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[5] Thirty-five percent of the students in the comparison group reported that they had taken part in an organized community service program at their school during the follow-up year. It is important to note that 55% of the students in the participant group had also taken part in a service program during the follow-up year. Those scores are not adjusted, but the chapter does examine the differences in outcomes for participants who did and did not continue their involvement in service-learning during the follow-up period.

[6] See Appendix B for a more detailed discussion of the adjustment for comparison group participation in service during the follow-up period.

[7] The results of the follow-up impact analysis are displayed in detail in Appendix F.

Program participants were then divided into two subgroups — those who had continued involvement in some form of service-learning program during the follow-up year (1996-97) and those whose participation had ended in 1995-96. Approximately 55% of the participants in the 1995-96 programs indicated that they had participated in an organized, school-based service program during the follow-up year.[8] By looking at the results separately for that group and for the participant group members who did not continue their participation in service-learning, we can begin to distinguish differences in impact between those with an ongoing involvement in service-learning and those for whom participation in a program was a one-time event. Exhibit 4.4 presents the results of that analysis. In both exhibits, pluses and minuses indicate positive or negative impacts.[9]

Impacts at Follow-Up on the Participant Group as a Whole

The major conclusion from the follow-up analysis is that few of the impacts found at the end of program participation were still evident one year later. For the participant group as a whole, the follow-up study found marginally significant positive impacts on only three measures: service leadership, school engagement, and science grades. While program participants continue to provide more hours of volunteer service than comparison group members, the difference between the two groups is much smaller (1.5 times as many hours vs. 2.3 times at post-program) and not statistically significant. As at post-program, to the degree that significant impacts are evident at follow-up, they continue to be small: the difference between participants and comparison group members on the measures of service leadership and school engagement are less than 3%; the difference on science grades is more substantial: slightly more than 11%. As with the post-program impacts, that difference would translate into a shift from a C to a C+ in that one subject.

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[8] The distinction between "repeaters" and "non-repeaters" is based on responses to the following question on the follow-up survey: "During this past school year, were you in a community service or service learning program that was organized by or took place in your school?" It is important to note that students were not necessarily involved in the same program as during the 1995-96 school year, and in fact many were clearly not (because they had moved from middle to high school, or from high school to college). As such, the conclusions that can be drawn concerning repeat participation are necessarily limited.

[9] As noted earlier, for the purposes of this study, impacts are considered statistically significant if they are significant at the .05 level or higher. However, we will report and discuss impacts that are "marginally significant" (that is, significant at the .10 level) though those results are not considered as reliable as the results with higher levels of significance. Note that the detailed results of the follow-up impact analyses are presented in Appendix F.

Exhibit 4.3
SUMMARY OF PARTICIPANT IMPACTS AT FOLLOW-UP

	All Participants		High School Participants		Middle School Participants	
Characteristic	**Analysis of Covariance**	**Difference-in-Difference**	**Analysis of Covariance**	**Difference-in-Difference**	**Analysis of Covariance**	**Difference-in-Difference**
Civic/Social Attitudes						
Personal and Social Responsibility						
Social Welfare Subscale	+ +		+ +			
Community Involvement Scale	+ + +		+ + +			
Total Personal and Social Responsibility Scale	+ + +		+ + +			
Acceptance of Cultural Diversity	+				+ +	
Service Leadership	+ + +	+	+ + +	+ +		
Civic Attitudes-Combined Scale	+ + +		+ + +			
Volunteer Behavior						
Volunteered for a Community Organization or Got Involved in Other Community Service in Last 6 Months	+ + +		+ + +			
Average Hours Doing Volunteer Work or Community Service in Last 6 Months	+ + +		+ +	+		
Educational Impacts						
Educational Attitudes						
School Engagement	+ + +	+	+ + +	+		
Educational Competence	+					
Course Grades						
English		− − −		− − −		
Math	+ + +		+ +			
Social Studies	+		+			
Science	+ + +	+	+ +	+ +	+ +	

[a] +/- indicates positive or negative impact. + is statistically significant at the 0.10 level; + + at the .05 level; + + + at the .01 level (two-tailed test).

-continued-

Exhibit 4.3
SUMMARY OF PARTICIPANT IMPACTS AT FOLLOW-UP (CONTINUED)

Characteristic	All Participants		High School Participants		Middle School Participants	
	Analysis of Covariance	Difference-in-Difference	Analysis of Covariance	Difference-in-Difference	Analysis of Covariance	Difference-in-Difference
Educational Impacts *(continued)*						
Overall/School GPA			+			
Core GPA	+					
Fail 1 or More Courses						
Days Absent						
Suspended During Previous Semester	+		+			
Want to Graduate 4-Year College or Beyond	+++		+++		++	
Homework Hours: 3 Hours or More Per Week	++		++			
Social Development/Involvement in Risk Behavior						
Psychosocial Maturity Communications Skills Subscale Work Orientation Subscale						
Consumed Any Alcohol in Last 30 Days	+					
Used Illegal Drugs in Last 30 Days						
Arrested in the Last 6 Months						+
Ever Pregnant or Made Someone Pregnant						
Fought, Hurt Someone or Used Weapon in the Last 6 Months			+			

[a] +/- indicates positive or negative impact. + is statistically significant at the 0.10 level; ++ at the .05 level; +++ at the .01 level (two-tailed test).

[b] Core GPA is calculated as the average of English, Math, Social Studies, and Science Grades.

[c] Three (3) programs were excluded from the analysis of days absent due to incomplete reporting.

[d] Seven (7) programs were excluded from the analysis of suspensions due to incomplete reporting.

Source: Impacts on "All Participants" is based on analysis of baseline and post-program surveys of 460 program participants and 304 comparison group members (N=764). High school impact analysis is based on 308 high school participants and 200 comparison group members (N=508). Middle school analysis is based on 152 participants and 104 comparison group members (N=256)

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When high school and middle school participants are looked at separately, the data suggest that students from the high school programs were somewhat more likely to show impacts than those who had been in programs in middle schools a year earlier.[10] High school students showed positive, significant impacts on service leadership and science grades, and marginally significant impacts on school engagement and hours of volunteer service. High school students continued to provide roughly twice as many hours of volunteer service as comparison group members during the follow-up period, and the difference in science grades was substantial — about 15%. As with the participant group as a whole, the impacts on attitudes were relatively small — approximately 4% on the measure of service leadership and less than 3% on the measure of school engagement. For the middle school students, the only impact that persisted was the impact on arrests during the previous semester, which was only marginally significant at follow-up.

As was the case for the post-program results, the ANCOVA analysis shows a much broader pattern of impacts at follow-up, with statistically significant impacts on most of the measures of civic attitudes, on volunteer behavior, and on a number of education-related measures, including school engagement, math and science grades, college aspirations, and homework hours. In the case of the measures of civic attitudes, the ANCOVA and difference-in-difference results can be seen as providing upper and lower bound estimates of the "true" program impact. As such, Learn and Serve programs may be generating a more substantial impact on civic attitudes that the difference-in-difference results tend to show. However, for the other measures in the study, it is likely that the ANCOVA analysis represents an overestimate and that the difference-in-difference results are a more unbiased and "conservative" estimate of the impacts from the programs. Here as at post-program, the analysis relies primarily on the difference-in-difference estimates.

The most striking and puzzling finding for the follow-up analysis is a negative impact on English grades that is statistically significant for the participant group as a whole and for the participants in the high school programs (middle school participants also experienced a drop in English grades, but it was not statistically significant). The finding is particularly puzzling because for the high school participants and the participant group as a whole, English grades are the *only* grades to show a substantial decline between baseline and follow-up. It is worth noting that English grades for participants in the follow-up were substantially higher than those for comparison group members at baseline, and while they declined in relative terms, they remained higher than the comparison group grades at follow-up despite the drop.

There are several possible interpretations for this particular result. The first is that it is a statistical artifact — evidence of the fact that, given enough sets of calculations, some results will be statistically significant solely by chance. Given that there are no other statistically significant negative findings in the study, this is a possibility worth considering.

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[10] As noted earlier, the analysis classifies middle and high school students based on their school level at the time of their 1995-96 program participation. A substantial proportion of both of those groups, however, had moved on to the next higher level of schooling (high school and college) by the time of the follow-up study.

The alternative is to recognize that while students involved in service may become more engaged in school and, as a result do better in those classes in which they normally struggle (e.g. math or science), their involvement in service may lead them to "coast" a little more in those courses in which they are already doing well. For those students, the other benefits of service — in terms of their sense of civic involvement, their increased sense of self-worth, or the opportunity to explore career options — may be worth a one half grade decline in one of their courses. While the idea that service may distract students from their schooling has always been a concern for critics of the service-learning movement, the fact that the decline in English grades is accompanied by a positive impact on science grades and school engagement suggests that it should not be seen as evidence that involvement in service has a negative impact on school performance. Rather, the results from the post-program and follow-up analyses suggest that, on the whole, service-learning is likely to provide a small benefit or, at worst, have little positive or negative impact at all.

Taken together, the results of the follow-up analysis provide little evidence that participation in even a well-designed service-learning program is likely to have substantial long-term participant impacts. Again, however, it is important to recognize both the limited character of service-learning programs as an intervention — in most cases less than a few hours a week — and the generally modest impacts produced by service programs at the end of the initial program period. In that context, the fact that there are any impacts evident at follow-up at all may be more significant than the fact that there are so few.

DIFFERENCES IN IMPACTS BETWEEN PARTICIPANTS WHO DID AND DID NOT CONTINUE THEIR PARTICIPATION IN SERVICE (REPEATERS AND NON-REPEATERS)

As part of the follow-up analysis, the evaluation also looked at the differences in impacts between those participants who had continued their involvement in organized service during the follow-up year ("repeaters") and those who did not ("non-repeaters"). The purpose of the analysis was to examine the question: to what extent are students who continue their involvement more likely to show positive impacts at follow-up and, conversely, to what extent is a one-time involvement in a service program likely to show longer-term effects?

To address this issue, the evaluation examined the separate impacts for each of these two subgroups — the repeaters and non-repeaters — and also compared the impacts for the two groups to each other to see if there were significant differences in impacts *between* the groups (that is, was the impact on a particular measure for one group significantly different from the impact on that measure for the other group). Exhibit 4.4 presents a summary of that analysis. The pluses and minuses indicate levels of significance *within* the subgroup (that is, whether there was a statistically significant impact for that subgroup when compared to the comparison group members); the superscript letters ^{bcd} indicate those instances in which the impacts for one subgroup were significantly stronger than those for the other.[11]

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[11] The results presented here are those from the difference-in-difference analysis. The detailed results from that analyses and results from a similar analysis using the ANCOVA model are presented in Appendix G.

Exhibit 4.4
PARTICIPANT IMPACTS AT FOLLOW-UP FOR "REPEATERS" AND "NON-REPEATERS"
(DIFFERENCE-IN-DIFFERENCE ANALYSIS)[a]

Characteristic	All Participants		High School Participants		Middle School Participants	
	Repeaters	Non-Repeaters	Repeaters	Non-Repeaters	Repeaters	Non-Repeaters
Civic/Social Attitudes						
Personal and Social Responsibility						
Social Welfare Scale						
Community Involvement Scale						
Total Personal/Social Responsibility Scale						
Acceptance of Cultural Diversity						
Service Leadership	++[d]		+++[d]			
Civic Attitudes-Combined Scale			+[c]			
Volunteer Behavior						
Volunteered for a Community Organization or Got Involved in Other Community Service in Last 6 Months	+[d]		c			
Average Hours Doing Volunteer Work or Community Service in Last 6 Months	++[d]		++		+[d]	
Educational Impacts						
School Engagement	++[c]		++		b	
Educational Competence						-[c]
Course Grades						
English	---		---		-	
Math						
Social Studies						
Science		+	++	+		

[a] In the table, +/- indicates positive or negative impact. + is statistically significant at the 0.10 level; ++ at the .05 level; +++ at the .01 level (two-tailed test).

[b] Indicates that the differences in impacts between the two groups are statistically significant at the .10 level.

[c] Indicates that the differences in impacts between the two groups are statistically significant at the .05 level.

[d] Indicates that the differences in impacts between the two groups are statistically significant at the .01 level.

Exhibit 4.4

PARTICIPANT IMPACTS AT FOLLOW-UP (CONTINUED) FOR "REPEATERS" AND "NON-REPEATERS"

(DIFFERENCE-IN-DIFFERENCE ANALYSIS)[a]

Characteristic	All Participants		High School Participants		Middle School Participants	
	Repeaters	Non-Repeaters	Repeaters	Non-Repeaters	Repeaters	Non-Repeaters
Educational Impacts						
Overall/School GPA						
Core GPA						
Fail 1 or More Courses						
Days Absent				+[b]		-
Suspended During Previous Semester				b		
Want to Graduate 4-Year College or Beyond	+		+			
Homework Hours: 3 Hours or More Per Week			+			
Social Development/Involvement in Risk Behavior						
Communications Skills Work Orientation						
Consumed Any Alcohol in Last 30 Days	+					
Used Illegal Drugs in Last 30 Days						
Arrested in the Last 6 Months	b				+[b]	
Ever Pregnant or Made Someone Pregnant						
Fought, Hurt Someone or Used Weapon in the Last 6 Months					d	

[a] In the table, +/- indicates positive or negative impact. + is statistically significant at the 0.10 level; ++ at the .05 level; +++ at the .01 level (two-tailed test).

[b] Indicates that the differences in impacts between the two groups are statistically significant at the .10 level.

[c] Indicates that the differences in impacts between the two groups are statistically significant at the .05 level.

[d] Indicates that the differences in impacts between the two groups are statistically significant at the .01 level.

On the whole, the data from the analysis confirm the generally limited nature of the impacts at follow-up. Neither the repeater nor the non-repeater group shows a strong pattern of statistically significant impacts.

At the same time, it is clear that participants who continued to be involved in organized service programs were more likely to show evidence of impacts at follow-up than students who were not involved in service during the follow-up year. Students who continued their involvement in organized service showed positive, statistically significantly impacts on the measures of service leadership, hours of volunteer service, and school engagement, as well as marginally significant impacts on involvement in volunteer service, college aspirations, and consumption of alcohol. The repeater group also showed the same statistically significant decline in English grades as did the participant population as a whole. Among the non-repeaters, the only statistically significant impact was a marginally significant impact on science grades.

For a number of measures (service leadership, involvement in volunteer service, volunteer hours, school engagement, and arrests), the differences between the impacts for repeaters and non-repeaters were large enough to be statistically significant. That is, on those measures, the repeater group saw gains that were significantly larger (or losses that were smaller) than those of the non-repeater group. In fact, while the repeaters experienced overall gains on each of these measures between the baseline and follow-up periods, on several measures the non-repeaters actually experienced a decline, though one that was not statistically significant.

Among high school participants, the repeaters also showed a broader range of impacts than non-repeaters, though the differences between the repeater and non-repeater groups were rarely statistically significant. Among middle school participants, neither the repeaters nor the non-repeater group showed much evidence of impacts at follow-up.

Though it is clear that participants who continued their involvement in service were more likely to demonstrate impacts at follow-up, it is important to recognize the limited conclusions that can be drawn from this particular analysis. While student survey data indicates which students participated in an organized community service or service-learning program during the follow-up year, we do not have any information on what kind of programs they were involved in or the degree of their involvement. "Program participation" in this instance might range from full participation in one of the programs studied in the evaluation (a "well-designed, fully-implemented service-learning program") or one-time participation in a one-day event organized by the student's school or college. As a result, key questions about the impact of regular involvement in service-learning cannot be answered. Do the limited impacts at follow-up for the repeaters suggest a declining return to program participation, or do they reflect a relatively low level of involvement in service by the repeaters during the follow-up year? Are these the kinds of returns that we should expect for students involved in well-organized, multi-year service-learning initiatives, or do they reflect a "low end" estimate that would be improved had students participated in high quality programs in both the program and follow-up years? Answers to both of these questions will have to wait for further research.

In the same vein, the issues of selection bias make it difficult to draw any strong, reliable conclusions concerning the impact of one-time program involvement over the longer-term. While the follow-up data clearly suggest that a one-time involvement in service-learning is unlikely to produce longer-term impacts (that is, that non-repeaters are significantly less likely to show impacts at follow-up), it is important to recognize that we know very little about why the non-repeaters chose not to continue their involvement in organized service. To the extent that they self-selected themselves out of service in the follow-up year, they may represent a particularly disaffected group of students and, as a result, understate the longer-term impacts that would be seen if program participants had been randomly assigned to repeater and non-repeater groups for the follow-up period.

In both of these instances, the data from the analysis of repeater/non-repeater differences is suggestive at best. What it tells us so far is that there is no evidence to support the hypothesis that short-term (one-time) involvement in service-learning produces strong, lasting effects on program participants. At the same time, however, the analysis does suggest that students who continue their involvement in service over time are significantly more likely to continue to experience the benefits of program participation.

IMPACTS ON SUBGROUPS

Finally, as was the case for the post-program impact analysis, the evaluation examined impacts at follow-up for a number of subgroups in the study. Once again, the purpose of the analysis was to identify any groups that appeared to particularly benefit (or fail to benefit) from service-learning compared to other students. In each instance, we examined the outcomes for complementary pairs of subgroups (for example, males and females) to see if there were significant differences between the impacts for the two groups, as well as examining the impacts on each group individually.[12]

Exhibit 4.5 provides an overview of those measures that showed significant differences in impacts between pairs of subgroups (that is, where the impact for one group was significantly higher or lower than that of its complementary group). Exhibit 4.6 provides a summary of the impacts on key measures for each of the subgroups.

More than was the case with the post-program results, at follow-up there some relatively pronounced differences in impacts between subgroups. For non-white and educationally disadvantaged participants, and for participants without prior service-learning experience at baseline, participation in service-learning appears to provide significantly more positive impacts on measures of academic performance (i.e., grades and course failures) than for their complementary subgroup (that is, white students, non-educationally disadvantaged students, and students who had prior service-learning experience at baseline). For the educationally disadvantaged students, at least, these findings suggest that service-learning may be a particularly effective strategy for students who are not otherwise likely to do well in school. More generally, they indicate that, while the academic impacts of service-learning may be limited for the population as a whole, some groups of students are likely to gain a more substantial academic boost from involvement in service-learning than others.

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[12] The results presented here are based on the difference-in-difference analysis. The detailed results from the subgroup impact analysis at follow-up using both the difference-in-difference analysis and an analysis using the ANCOVA model are presented in Appendix G.

Exhibit 4.5
SUMMARY OF SUBGROUP ANALYSES
FOLLOW-UP IMPACTS
(Difference-in-Difference Model)

Subgroups	Measures with Significant Differences in Impacts Between Groups	Level of Significance[a]	Subgroup with Stronger Impacts
Educationally Disadvantaged/ Non-Disadvantaged	English Grades	**	Educationally Disadvantaged
	Math Grades	***	
	Science Grades	**	
	Overall GPA	*	
	Core GPA	***	
	Number of At Risk Behaviors	*	
Economically Disadvantaged/ Non-Disadvantaged	School Engagement	*	Non-Disadvantaged
	Days Absent	*	
	Fought, Hurt Someone, or Used Weapon	***	
Female/Male	Used Illegal Drugs in Last 30 Days	*	Females
	Fought, Hurt Someone, or Used Weapon	*	
	Number of At Risk Behaviors	**	
White/Minority	Engaged in Volunteer Service	*	White
	English Grades	*	Minority
	Math Grades	*	Minority
	Social Studies Grades	**	Minority
	Overall GPA	*	Minority
	Core GPA	*	Minority
	Course Failures	*	Minority
Middle School/ High School	Math Grades	*	H.S. Students
	Social Studies Grades	*	
	Science Grades	*	
	Overall GPA	**	
	Core GPA	**	
	Course Failures	**	
At Risk Behavior (Drink, Use Drugs, Engage in Delinquent Behavior) at Baseline	Social Welfare Subscale	**	Non-At-Risk
	Personal and Social Responsibility (Total)	*	Non-At-Risk
	Combined Civic Attitudes	*	Non-At-Risk
	Social Studies Grades	**	At-Risk
	Overall GPA	*	At-Risk
	Days Absent	**	Non-At-Risk
	Suspensions	***	At-Risk
	Work Orientation	**	Non-At-Risk
Had Been a Volunteer/ Not Been a Volunteer at Baseline	Community Involvement Subscale	**	Volunteers
	Used Illegal Drugs in Last 30 Days	**	Non-Volunteers

Exhibit 4.5
SUMMARY OF SUBGROUP ANALYSES
FOLLOW-UP IMPACTS
(Difference-in-Difference Model)

Subgroups	Measures with Significant Differences in Impacts Between Groups	Level of Significance[a]	Subgroup with Stronger Impacts
Students in Service Class in Year Immediately Prior to Baseline/Students Not in Class	Math Grades Social Studies Grades Science Grades Overall GPA Core GPA Course Failures	*** * ** ** ** *	Not in Class
Students in Service Class Any Year Prior to Baseline/Students Not in Class	Math Grades Science Grades Overall GPA Core GPA	*** ** ** *	Not in Class

[a] *Statistically significant at the 0.10 level; ** is statistically significant at the .05 level; *** at the .01 level (two-tailed test)

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At the same time, it is important to recognize that, even for those subgroups, the academic impacts of service-learning are limited and that the broader finding is that, even at follow-up, the benefits of service-learning are relatively consistent across the range of subgroups. While there are differences between groups on some measures, none of the subgroups show consistent, statistically significant impacts at follow-up (see Exhibit 4.6). Thus, while some groups may benefit more than others from service-learning, those benefits are relative in nature. The major conclusion from the follow-up study is that none of the subgroups show a strong pattern of longer-term impacts.

Overall, the follow-up study suggests that the positive post-program impacts of short-term service-learning programs are unlikely to persist without the continued involvement of students in organized service. For the participant group as a whole, most of the impacts that were evident at the end of the 1995-96 school year had disappeared by the time of the follow-up one year later. A number of impacts were evident, however, among those students who had continued their involvement in service and in most cases, the gains for "repeaters" were significantly greater than those for students who ended their involvement in service-learning.

In many ways, the follow-up results raise more questions than they answer. Would students continue to show incremental gains if they were involved in ongoing, multi-year service initiatives? Is there a threshold "dosage" that is needed to achieve a long-term impact — how much service-learning is "enough" to establish civic values and active volunteerism on a lasting basis? While this study cannot answer those questions, it does suggest that short-term involvement in service-learning is unlikely to produce long-term effects and, conversely, that students who continue their involvement in service over time are significantly more likely to continue to experience the benefits of program participation.

Exhibit 4.6
SELECTED IMPACTS AT FOLLOW-UP BY SUBGROUP[a]
(Difference-in-Difference Model)

Subgroup	Service Leadership	Engaged in Volunteer Service	Volunteer Hours	School Engage-Ment	English Grades	Math Grades	Science Grades	Core GPA
Educationally Disadvantaged						++	++	+
Not Educationally Disadvantaged					- - -			-
Economically Disadvantaged						+		
Not Economically Disadvantaged				+++	- -			
Risk Behaviors at Baseline					- -	+		
No Risk Behaviors at Baseline					- -		++	
Females								
Males								
White				+	- - -			
Minority			+			+	++	
Had Volunteered at Baseline	+			++				
Not Volunteered at Baseline					-			
In Service Class Last Year	++				- - -			
Not in Service Class Last Year				+	- -	++	++	
In Service Class Any Prior Year			+		- - -			-
Not in Class Before					- -	++	+++	

[a] In the table, +/- indicates positive or negative impact. + is statistically significant at the 0.10 level; ++ at the .05 level; +++ at the .01 level (two-tailed test).

CHAPTER FIVE

PARTICIPANT PERSPECTIVES

In addition to the survey measures and school record data discussed in Chapters Three and Four, the evaluation also collected information at the end of the program year on the participants' assessments of their service experience and its impact on their lives, both through questions on the student surveys and through interviews with students during site visits to the programs. The message from those sources is generally consistent with the other post-program findings: that the programs provided a meaningful service experience, and that through their participation students gained an increased understanding of their communities, their academic work, and themselves.

ASSESSING THE PROGRAM EXPERIENCE

As part of the post-program surveys, program participants were asked a number of questions about both the nature of their service experience and their assessment of its quality and impact (the findings on the nature of the service experience were reported in Chapter Two). In general, participants gave high marks to their service experience, reporting that they believed their service work to be helpful to the community, that they learned valuable skills and developed new relationships, and that this was an experience that they believed would be beneficial for others. Specific findings include:

- More than 95% of the program participants reported that they were satisfied with their community service experience and that the service they performed was helpful to the community and the individuals they served.
- 87% of the participants believed that they learned a skill that will be useful in the future, and 75% said that they learned more than in a typical class.
- 75% reported developing "a really good personal relationship" through their service experience, most commonly with another student or a service beneficiary.
- Over 90% felt that students should be encouraged to participate in community service (though only 36% felt that it should be required).

Approximately 40% of the participants also reported that the service experience helped them think about and/or learn more about a future career or job (Exhibit 5.1).

In general, both middle school and high school students reported positive assessments, though middle school students were somewhat less likely to have developed a good personal relationship through service or to have said that they learned more than in a typical class. The relatively strong middle school assessment for the Learn and Serve programs contrasts with the findings in the Serve-America evaluation, in which middle school students were substantially less likely to rate their program experience highly. Again, this reflects the higher quality of the service experience in the programs selected for the Learn and Serve evaluation.

Exhibit 5.1
STUDENT ASSESSMENTS OF THEIR SERVICE EXPERIENCE

Characteristic	Overall (Percent)	High School (Percent)	Middle School (Percent)
Satisfied/Very Satisfied with community service experience	95.5	97.2	91.2
Service performed was helpful/very helpful to community	95.8	96.9	92.9
Service performed was helpful/very helpful to individuals served	96.5	98.3	91.8
Learned a skill that will be useful in future	87.2	87.4	86.5
Learned more or much more during community service experience than in a typical class taken in school	74.6	78.6	64.5
Service experience helped:			
Think about the kind of job or career I might want	42.4	42.3	42.8
Learn more about a job or career I might be interested in	42.8	41.6	45.7
Developed really good personal relationship with someone during community service experience	75.3	78.4	67.7
Developed good relationship with:[a]			
Supervisor at community service site	27.3	30.1	20.2
Another adult working at the site	19.7	22.5	12.7
A teacher	26.3	28.0	22.0
Another student working at the same site	39.6	42.3	32.9
A service beneficiary	39.6	45.5	24.9
Other	1.5	1.4	1.7
Students should be encouraged to participate in community service	91.4	92.7	88.3
Students should be required to participate in community service	35.5	35.5	35.5

Sample Sizes: Overall Analysis sample: 608; High school: 435; middle school: 173. Sample sizes for individual items vary slightly due to item nonresponse.

[a] Percentages do not sum to 100 because of multiple responses.

PARTICIPANT VOICES

In addition to the post-program surveys, the evaluation staff also conducted interviews with small groups of program participants in the evaluation sites. The interviews also provide an important perspective to the evaluation. Though not a statistically reliable sample, the student interviews help to give life and context to the quantitative data and help to illustrate the experiences that underlie some of the changes in scale scores.[1]

In general, the comments in participant interviews add a degree of richness and complexity to the impacts reflected in the quantitative data. Participants saw their service experience as providing a new understanding of the community and new insights into their roles as citizens. Service also helped them gain a sense of self-confidence and competence, and an increased respect and tolerance for others. For a number of students, service helped open a window into new career choices, and for some (though most students found this difficult to articulate), service helped them make the connection between "the real world" and what they were learning in their classroom. Underlying all this was a sense that the service itself was meaningful—that their work was making a difference in the lives of others.

The following pages present examples of comments drawn from the student interviews. They were selected to illustrate the different kinds of experiences reported by students and the different ways in which students saw themselves impacted by participation in the program.

Service helped students broaden their understanding of the community and their role as community members:

> *I think [visiting] Appalachia was really important. It was a good experience to see a different part of the world that you never knew was there. You could read about it in books and newspapers, how some people are poor and can't afford this and that. But, you really don't see it unless you're right there.* (North Olmsted student)
>
> *Before going to [Adult] Day Care, I thought Alzheimer's was like this little disease that was somewhere in the corner that didn't affect people around here. And, I see that it does affect a lot of people. And their families just need to know that they are going to be somewhere where they are going to be safe. They are going to be fed. They are going to feel loved. This is a big problem, and I never even knew it existed. And I have become aware of it through the service. And I think that's why everyone has to get involved. I think that's really what it takes to be a good citizen.* (North Olmsted student)
>
> *It's important to help out wherever you can, not always expecting something back. You don't have to feel that you* have *to do it, you do it just cause you want to.* (Buffalo student)

---

[1] Individual and group interviews were conducted with students chosen randomly from the programs during visits to each site. In an informal discussion, students were asked to talk about their experiences at their service sites and in the program and ways in which their experience affected their ideas about citizenship, schooling, and their own lives. The quotations in this chapter are drawn from transcriptions of the taped interviews.

> *Before I got really involved in community service, I always thought of being a good citizen as something like raking a neighbor's yard. Now I look at it more as actually touching people's lives and communicating with all the people of the community. Not just a certain group of people—the doctors and the lawyers and the neighbors, but everybody that's in the community. And actually touching their lives and affecting their lives. And, having them put something back into your life through you doing that.* (Scotia Glenville student)
>
> *It makes us better citizens. A good citizen to me is someone who puts back into the community. You can see the difference in freshmen. When they come in, they're kind of loud and rowdy. But as their community service goes on, you can see the change. They quiet down, they mature a whole lot. They realize they're not just kids anymore. And you can see the difference between people in the program and those who are not, just in their maturity. It helps you deal with adults in school and outside school, too. You learn how to solve conflict, how to talk to people.* (Caprock student)

Service helped students gain an increased sense of self-confidence and competence:

> *I'm learning a lot more patience. And, to come out and to talk more. I was shy all the time, and [the program] just taught me to come out with myself.* (Buffalo student)
>
> *Speaking to the adults I work with has made it easier for me to talk with my teachers. If I don't understand something, I'm more comfortable asking questions.* (Caprock student)
>
> *I think I have so much more confidence now. And it's more genuine. I really feel like I've made a difference this year. And, I really feel like I'm capable of making accomplishments. I think that the scholarship I got this year was definitely because of SITES. I think that I was more confident in my interview and had more to say. You gain the ability to talk comfortably with people that you don't know.* (North Olmsted student)
>
> *I think I've matured so much this year just through SITES, because we are actually out in the work world, and we have to deal with people every day. Not just students or kids our age or younger. We have to deal with adults—we have to be mature, show responsibility, and act like we know what we are doing.* (North Olmsted student)
>
> *I think this makes me more ready for college. I know how to take care of things. I know how to just sit down and do it. It teaches you to be more responsible; you really have to be there. The school, they expect you to be there, and the kids look forward to you coming. They're counting on you.* (Caprock student)
>
> *I've learned to speak up.* (Hempstead student)
>
> *Pretty much everybody in the class at one time or another is in charge of an activity. So, you learn if you are capable of pulling off something like that. You learn a lot about yourself and the skills that you have, your strengths and weaknesses....* (Marion student)

Students reported an increased tolerance and respect for others:

> *...it teaches us a lot of patience.* (Marion student)
>
> *...I work in a group home for mentally handicapped people. And, since I've been doing it, I've really gained a lot of knowledge about how they live, how they do things, what their life is like. It really helps me to understand what they go through. And, you know, with the handicapped, people think it's the end of the world. But it's really not. They learn to deal with it just like anything else you learn to deal with in your life.* (Scotia Glenville student)
>
> *There's this one little girl that everybody used to call stupid because she didn't get stuff as quick as everybody else did. And when she couldn't do something she would quit and cry, because everybody would tell her that she didn't know what she was doing. I had to sit there to help her to stop crying and tell her she was just like everybody else, they were just a little bit faster than she is.* (Buffalo student)
>
> *I just learned how to accept other people. I used to be the kind of person where whatever I did was right. It's just right, and nobody will change it. I still hold that view but, through the class, I learned that other people do things different from me. And it's not for me to change my old perspectives to agree with someone else. But I can accept what they say.* (Hempstead student)

Service helped students learn and think about careers:

> *I learned communication. And about what I'm going to be when I get older. It helped me decide what I wanted to be.* (Buffalo student)
>
> *I didn't really know what I wanted to do before. And, at least now I know that I want to do something with kids. I never thought of me as maybe going into teaching, like elementary school. No way, that's not me. But, it's possible. I could.* (North Olmsted Student)
>
> *It's neat for me to get out into the elementary schools. It gives me an inside look. I came into the program not really knowing what I was going to do. I knew I wanted to work with children, but I didn't know if I wanted to do day care, maybe preschool, maybe teach, and this lets me know what it's really like. It gives me an inside look. There's so much extra work that goes on in teaching. It's not just the teaching, it's planning and that sort of thing. It gives me more than even going to college could.* (Caprock student)
>
> *I've really been looking for what I want to do, the direction I want to go. I think now, I really want to do something around helping somebody—human services, medical field, or something like that where I'm going to be working with somebody, helping them make a difference in their lives.* (Scotia Glenville student)
>
> *Neither of my sites really had anything to do with what I wanted to become. But I at least learned there were other options open to me, that I liked working with the elderly and I like working with kids too. So, I have a broader range of things to look at now instead of just focusing on what I really wanted to do at first.* (North Olmsted student)

Service provided an opportunity to see the link between school work and the community:

> *My service mini-course is Buffalo General Hospital Health careers. We go on a lot of field trips to the hospital. And, when you come back, you understand science more—how simple machines work in hospitals and what they have to do to save people's lives. You come back and you understand more about science.* (Buffalo student)
>
> *We had different speakers come in and help us do the curriculum of the social issues that we did—the elderly, and poverty.... And, if you were working with the elderly, you could actually go in and see what's Medicare and Medicaid and how it does apply. You could actually look at the facts. I wouldn't say I went in and took some of this and, applied it. But once you have the background and the facts, you do apply it. And, you see how everything fits together.* (North Olmsted student)
>
> *It's fun to learn. You know how people don't like learning. But this is fun. Fun to learn.* (Wakulla student)
>
> *I think it's a big difference if you say you learned it hands-on, compared to if you say, well I read a book and I learned. We learn about the stuff in SITES...and then we apply it at our site. And I enjoy learning that way more then I do just sitting in classrooms all day.* (North Olmsted student)

Students felt that they made a difference:

> *They [the students we tutor] know that there is somebody in this school other than the teachers and the principal that cares about them. If they need to be helped they're going to be helped.* (Buffalo student)
>
> *You see a big, big change in the kids you work with. I had a girl who could hardly read, and I worked with her every week, and at the end of the year she was above the other students in her class. She was almost a grade ahead in her reading level. She just needed the extra attention. Other kids, they want to impress us, they want to show us they can do the work. And they do.* (Caprock student)
>
> *One day, [one of the nursing home residents] was just sitting there, hiding his hands like this. And he was just crying uncontrollably. And I was just, I just looked at him and I thought, what if this was my grandpa? What if this was my husband? My dad? So, I went to him and I took his hand and I said, "Jim, I can't understand what you are feeling, but can you tell me anyway? Can we talk about it? Can I just listen?" And, he said, "no, no, no." And, I said, "Come on Jim, please! I want to know." So, I took him to the back of the room, and I sat there with him the whole time I was there, and I just held his hand, mostly. He just talked. And ever since that day, as soon as I get there, he's got a smile. He tells me all these stories. He talks. He's just done so much better. And, I just, I think that's my biggest accomplishment there, because he has not cried since that day.* (North Olmsted student)

CHAPTER SIX

SERVICE IN THE COMMUNITY

While the primary goal of Learn and Serve is to help young people develop through involvement in service-learning, Learn and Serve is also intended to deliver needed services to the community—to "meet the unmet human, educational, environmental, and public safety needs of the United States." ***Based on telephone interviews with over 150 local agencies, the Learn and Serve programs in the evaluation sites appeared to meet that goal***. During the course of the 1995-96 school year, Learn and Serve students were involved in over 300 distinct projects or activities in each semester—ranging from tutoring and mentoring in elementary schools, to assisting in elder care facilities, rebuilding community parks, and rehabilitating houses in low income neighborhoods. The work of the students was rated highly by the organizations that the students worked with (the "host agencies"), both in terms of the quality of the services provided and the impact of the service on service beneficiaries and the agencies themselves.

This chapter examines the services provided by Learn and Serve participants in the seventeen evaluation sites during the 1995-96 program year, focusing on two major questions:

- ***What kind of work did Learn and Serve participants do***? How much and what kinds of services did Learn and Serve participants provide to their communities?
- ***What was the quality and perceived impact of those services?*** How did the schools and community agencies where students worked assess the quality of the services that students provided, and to what extent were service efforts seen as beneficial to service recipients and the community?

The analysis is based on information gathered through two rounds of telephone interviews with staff at the schools and community agencies that served as service sites, or "host agencies," for the students in the seventeen service-learning programs. The first round of telephone interviews were conducted in February and March, 1996, and collected information on the service activities that took place during the first semester of the 1995-96 school year. The second round of surveys took place during the summer of 1996 and collected information on second semester activities. Altogether, approximately 210 interviews were conducted, representing more than 90% of the agencies working with the programs in the evaluation.[1]

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[1] Each of the evaluation sites was asked to provide the names and contact information for the schools and community agencies ("host agencies") where program participants were performing service during the first and second semesters of the 1995-96 school year. Sixteen of the seventeen programs were able to provide that information. Service at the seventeenth program (Wanamaker Middle School) primarily involved public performances where there was no readily identifiable community partner. A total of 154 agencies were identified, representing a potential pool of 250 host agency surveys (some agencies participated in only one semester). 213 surveys (85%) were completed and form the basis for the analysis.

SERVICE ACTIVITIES IN THE EVALUATION SITES

Over the course of the 1995-96 school year, the students in the Learn and Serve evaluation sites provided an impressive array of services to their communities. Altogether, community agency representatives in the seventeen study sites estimated that over 1,000 Learn and Serve students were involved in over 300 distinct projects or activities each semester, providing an estimated 154,000 hours of service during the year. Based on the host agency data, the average student provided over sixty hours of service each semester (see Exhibits 6.1 and 6.2).[2]

The service activities conducted by the students included a wide range of activities, often with several different projects taking place in each agency and several students involved in each project.[3]

- At Wakulla Middle School, a mix of high achieving and at-risk students worked together and with Parks and Recreation Department staff to renovate a community park. Students helped to landscape the park, build picnic tables, and construct a gazebo, with four teams of students (about 25 students per team) working for half a day at the project every other week.
- At Scotia High School, 65 students took part in the Elder Key program which partnered students with 130 elderly residents in the community. Students made daily telephone calls to their partners and were trained in emergency procedures for those cases in which their partner failed to answer the phone. The program was credited with saving several lives over the course of the year when students notified authorities that their daily call had not been answered.

The number of host agencies associated with each program site varied widely depending on the structure of the local program. In some cases, most or all of a program's students worked with only one or two service sites (for example, students at Wakulla Middle School all worked on a single park beautification project); in others (notably North Olmsted and Caprock High Schools), students worked individually or in small groups at a number of different sites. As a result, the survey responses are heavily weighted towards those programs using multiple sites, though the service experience in terms of hours was more evenly distributed. (For example, approximately 57% of the agency surveys (112 of 213) are from just two of the seventeen programs in the evaluation—the North Olmsted and Caprock programs—though they represent 36% of the reported service hours.) To adjust for this, where the data called for averages among responses (for example, the ratings of service quality and impact), the evaluation used a weighted mean based on the relative number of participant service hours for each agency.

[2] Data on numbers of participants and numbers of projects are presented separately for each semester to avoid double counting those activities and participants that continued for the full year. For the same reason, the report does not present "total" figures on participants and projects for the year in the tables in this chapter. The data on service hours, however, do represent an unduplicated count and can be totaled across projects and semesters. Finally, it is important to note that the data on numbers of participants are composed of the participant numbers reported on the host agency surveys. Since some students worked at more than one agency or on more than one project, even within a semester, it is likely that there is some double counting of the number of separate individuals involved. As such, the figures for numbers of participants are likely overstated to some degree, and the figures for average hours per participant likely represent a minimum figure.

[3] A "project" or activity in this context is a distinct set of activities or accomplishments. Learn and Serve participants working at a school might be involved in ongoing tutoring of elementary students, but might also organize a special field trip and help paint a mural on a playground wall. For the purposes of this discussion, those activities would be counted as three distinct "projects."

Exhibit 6.1
SERVICE HOURS AND NUMBERS OF PARTICIPANTS AT AGENCIES SERVED BY THE SEVENTEEN EVALUATION SITES

	Fall Semester	Spring Semester	Total
Service Hours			
High School Service Hours	59,772	70,430	130,202
Middle School Service Hours	12,815	11,465	24,280
Total Service Hours	72,587	81,895	154,482
Reported Participants[a]			
High School Participants	701	939	—[b]
Middle School Participants	388	386	
Total Participants	1089	1325	
Average Hours per Participant			
High School	85.3	75.0	—[b]
Middle School	33.0	29.7	
Total	66.7	61.8	

Source: Telephone interviews with host agencies in the evaluation sites for projects that took place during the 1995-96 academic year. Fall semester figures are based on interviews conducted in February-March, 1996 (N=100). Spring semester figures are based on interviews conducted in June-July, 1996 (N=113). Results are based on surveys from sixteen of the seventeen evaluation sites. Wanamaker Middle School not included.

[a] Numbers of participants represent the total of participants reported by the host agencies. Since students may have worked at more than one agency/service site, the figures include some double counting of individual volunteers.

[b] Number of participants and average hours cannot be totaled because of double counting (i.e. the same participants providing services in both semesters).

- At East Scranton Intermediate School, 8th grade students worked at the local hospital two to three afternoons each week, where they were assigned individually or in small groups to departments throughout the hospital. Students read to children in the pediatric wards, helped staff the main desk and switchboard, delivered meals, and provided clerical support. The program began in 1993-94 and has expanded each year since.
- In North Olmsted, students worked an average of 4-5 hours per week at over 30 community agencies and schools, working individually and in small groups. Student assignments included working as tutors and teachers' aides at elementary schools, and as aides at nursing homes and senior day care centers; helping to manage the city Food Bank; working with severely disabled children in special education programs; and volunteering a local hospitals. In 1995-96, students also coordinated the local "Coats for Kids" drive, painted a house for a low-income resident, and established an in-school peer tutoring program at the high school.

Exhibit 6.2
LEARN AND SERVE PROJECT ACTIVITIES

Category	Fall Semester Number of Projects	Spring Semester Number of Projects
Education		
Tutoring/Mentoring	33	35
Classroom Aide	48	61
Special Projects	23	20
Administration	29	19
Misc.	6	5
Subtotal	139 (45%)	140 (43%)
Human Needs		
Elderly	59	50
Poverty	29	20
Day Care/Youth	11	11
Disabilities	10	13
Homeless	7	10
Health/Medicine	8	10
Misc.	13	31
Subtotal	137 (45%)	145 (45%)
Environment		
Recycling	0	2
Parks/Landscaping	14	27
Neighborhood Improvement	4	1
Misc.	2	2
Subtotal	20 (7%)	32 (10%)
Public Safety		
Public Safety	11 (4%)	6 (2%)
TOTALS	307 (100%)	323 (100%)

Source: Telephone interviews with host agencies in the intensive sites for projects active during the 1995-96 academic year.

- At Caprock High School, students also worked an average of 4 hours per week at agencies throughout the community. In 1995-96, students provided clerical support at the Texas Employment Commission offices, distributed clothes and food at a day shelter, entertained and helped transport residents at a nursing home, read to and played with children at a rehabilitation hospital, and helped build exhibits and lead tours at the Amarillo Discovery Center, a local science museum.
- At Taos High School, students in the service-learning course helped to organize a local "Peace Day" aimed at reducing school and community violence. Over 1200 local elementary students received conflict resolution training as part of the event, which was described as "the most effective model I've seen in terms of working with youth" by one community representative.

Taken together, the more than 300 projects that took place each semester in the evaluation sites represent a substantial body of work addressing a broad array of community needs (see Exhibit 6.2 above):

- Approximately 140 projects provided education-related services in both the fall and spring semesters of the 1995-96 school year. Service activities included tutoring and mentoring younger students, assisting teachers and working as classroom aides, organizing special projects in the schools (for example, arranging field trips, making presentations, coordinating school events), and assisting with administrative activities at local schools.
- A similar number of projects (137 in the fall and 145 in the spring) addressed human services needs. Those projects included work with elderly citizens through home visits and at nursing homes, senior citizens centers, and adult day care centers. Service with the elderly was by far the most common type of activity in the human services area. Other activities included work on anti-poverty efforts (food and clothing drives and work at local job training and welfare offices), assisting at youth and day care centers and at programs for children with disabilities, and volunteering in hospitals and homeless shelters.
- Students took part in 20 different environmental projects in the fall, and 32 in the spring. The most common activities were landscaping and park clean-up efforts. Other environmental activities included recycling projects and neighborhood improvement or beautification efforts (painting murals, building gazebos and park benches, etc.).
- The smallest category was public safety efforts, with 11 projects in the fall and 6 in the spring. Students volunteered at a local teen court, helped to organize violence prevention efforts (including a townwide "peace day"), and assisted the fire department with its "disaster day" drill.

ASSESSMENTS OF SERVICE QUALITY AND IMPACT

According to the schools and community agencies where students provided assistance, the work of the Learn and Serve programs was substantial and had an impact on the individuals and organizations being served. Almost across the board, agencies rated the work of students highly in terms of the quality of their services and its impact on both service recipients and the agencies themselves. In almost every case, agency staff spoke positively of the work of the students and the contributions that they had made.

Assessments of Service Quality

As part of the telephone interview process, agencies were asked their assessments of the quality of the services students provided and of their overall experience with the program. In general, the agencies responded very positively (see Exhibit 6.3). On average, agencies rated the quality of the work performed as an 8.6 on a scale of 1 to 10 (with 1 as "unacceptable" and 10 as "best possible"). When asked to rate their overall experience with the local Learn and Serve program, 99.5% rated it as "good" or "excellent." Ninety-seven percent of the programs indicated that they would pay at least minimum wage for the work being done; and 96% reported that they would use participants from the program again. It is worth noting that both the middle and the high school programs were almost equally highly rated. While agency expectations for middle school students may have been lower than for older students, clearly the agencies were pleased with the quality of service they received.

These positive assessments were also reflected in the comments that agencies made in the course of the telephone interviews. Agencies consistently noted that students were mature, enthusiastic, and took their responsibilities seriously. They also regularly praised the work of the teachers and program coordinators responsible for managing the programs and often noted their interest in continuing their involvement. While there were scattered negative comments, the vast majority of comments were positive. Exhibit 6.4 provides examples of the positive comments from the interviews.[4]

Assessments of Service Impact

The host agencies also consistently reported that the work of the Learn and Serve programs had an impact, both on service recipients and on the agencies themselves. These impacts took a variety of forms. For the community agencies, the primary effect was on the agencies' ability to increase the delivery of services or to offer improved services to their clients:

- 90% of the agencies indicated that the Learn and Serve participants had helped the agency improve their services to clients and the community;
- 68% said that the use of Learn and Serve participants had increased the agency's capacity to take on new projects.

For the majority of the agencies in the telephone survey, the presence of Learn and Serve participants meant that work got done or services were delivered that would not otherwise have taken place. When asked "How much of the work would have gotten done without the Learn and Serve volunteers," 17% of the agencies reported that none of the work would have gotten done, and 35% said that less than half of the work, would have been completed without the services of the program participants (see Exhibit 6.5).

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[4] Approximately 15% of the agencies in each round of surveys reported that there had been some negative impacts associated with participation in Learn and Serve. The most common complaint was the additional time required to train the participants; second most common were complaints about the quality of the volunteers and/or scattered behavioral problems. Given the overall positive ratings, it seems clear that the positive benefits outweigh any negative impacts.

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Exhibit 6.3
HOST AGENCY ASSESSMENTS OF SERVICE QUALITY[a]

	Average Assessment		
	All Programs	**High School**	**Middle School**
Quality of the Work (Average Rating, Based on a 10-Point Scale)[b]	8.6	8.6	8.0
Overall Assessment of Experience with Learn and Serve Program			
Excellent	93.3%	93.4%	92.9%
Good	6.2%	6.0%	6.8
Fair	0.5%	0.6%	0.0
Poor	0.0%	0.0%	0.2
Percent of Host Agencies that Would Pay At Least Minimum Wage	97.1%	97.1%	97.2%
Percent of Host Agencies that Would Use Learn and Serve Participants Again	96.1%	96.4%	94.5%

Source: Telephone interviews with host agencies in the evaluation sites for projects that took place during the 1995-96 academic year. Figures represent combined results from two rounds of surveys (Fall and Spring). (N=213)

[a] Agency responses weighted by service hours

[b] 1 is "unacceptable" and 10 is "best possible".

Exhibit 6.4
HOST AGENCY COMMENTS ON SERVICE QUALITY

The students are very responsible regarding their volunteer schedule and duties. (Caprock)

This is a great program! We wish other schools besides Caprock participated in the program. (Caprock)

The students were dependable, responsible, and enthusiastic. (Caprock)

The program was definitely a win-win situation. It allows organizations to get valuable help, and also helps train students so that they might gain skills and experience. (Caprock)

We are looking into an extension of the program as a summer program, with new projects for summer volunteers. It is a very good partnership. (Wakulla)

The students were dedicated, coming during school vacations [in addition to the regular school week] and acted as great peer role models (North Olmsted)

Students are creative, motivated, often go beyond stated responsibilities or expectations—their presence is an enhancement to the program. (North Olmsted)

The volunteers are reliable, responsible, and use overall good judgement. Teachers praise them as role models, and parents often request volunteers as tutors. (North Olmsted)

We have hired two former volunteers to become regular staff. (North Olmsted)

[The program staff] had high standards for volunteers, volunteer behavior and job performance. Their performance was exemplary. (Rochester)

Many students return to do extra volunteer work. Its a win-win situation, and we are very enthusiastic about the program. (Scotia)

We feel very positively about the program. Teachers in other disciplines now want to add the mentoring program to their curricula. (Scotia)

We have workers who are "11's"—going above and beyond expectations. This program develops a level of maturity and responsibility unusual in people this age. (Scotia)

We treasure the students from Scotia. We can always depend on them. (Scotia)

I beg to have them come—we want them back. They are dependable. Great program. (Scotia)

This was a terrific experience because of the principal and the students who took pride in the experience. (Scranton)

Everyone wants Hillside tutors—the people at Citrus Elementary are very excited about it. (Hillside)

The Vista volunteers are as good and reliable as the paid aides. The Vista students are at-risk themselves, and the program is an effective means to keep them tied into education. (Vista)

Source: Telephone interviews with host agencies. Agencies were asked, "Is there any additional information about the program that you would like to share?"

Exhibit 6.5
WOULD WORK HAVE GOTTEN DONE WITHOUT LEARN AND SERVE?

	How Much of the Work Would Have Been Completed Without Student Volunteers? (Percent of Responses in Each Category)		
	All Programs	High School	Middle School
None	16.7	15.6	21.6
Some of the Work (50% or less)	35.2	36.4	29.7
Most of the Work (51-99%)	14.8	14.5	16.2
All of the Work	33.3	33.5	32.4

Source: Telephone interviews with host agencies in the intensive sites for projects active during the 1995-96 academic year. Figures represent combined results from two rounds of surveys (Fall and Spring). (N=210)

A majority of the host agencies also indicated that participation in Learn and Serve had also had an impact on their operations in terms of their use of young volunteers, the development of partnerships with schools, and the attitudes towards youth in the community:

- 82% reported that the Learn and Serve program had helped to build a more positive attitude towards youth in the community;
- 66% reported that participation in Learn and Serve had increased the agency's interest in using student volunteers;
- 66% said that it had fostered a more positive attitude towards working with the public schools; and
- 56% said that participating in the program had produced new relationships with public schools; and
- Less than 2% of the agencies reported no positive effects from participation in the program.

The host agencies also ranked the Learn and Serve programs highly when asked to rate the impact of the services provided by program participants on direct beneficiaries and the community. Agencies gave the student-provided services a rating of 8.7 for their impact on service beneficiaries and an 8.2 for their impact on the community, using a scale that ran from 1 (No impact) to 10 (Greatly Impacted). As with the ratings on the quality of service, both middle and high school services were rated highly (see Exhibit 6.6).

The high rankings reflect the clear belief by the agencies that the program participants were having an impact on those they served. Among the host agencies where students provided education-related services (tutoring, student aides, etc.), 75% of the agency representatives contacted reported that the students had helped to raise the skill levels, engagement, and self-esteem of the young people being assisted. Among programs serving elderly citizens or providing health-related services, nearly 65% of those interviewed reported that the presence of the program participants helped improve the

Exhibit 6.6
HOST AGENCY ASSESSMENTS OF THE IMPACT OF SERVICE[a]

Impact	Average Assessment (10 Point Scale)[b]		
	All Programs	High School	Middle School
Impact of the Service on Beneficiaries	8.7	8.7	8.2
Impact of the Service on the Community	8.2	8.2	8.1

Source: Telephone interviews with host agencies in the evaluation sites for projects that took place during the 1995-96 academic year. Figures represent combined results from two rounds of surveys (Fall and Spring). (N=213)

[a] Agency responses weighted by service hours.
[b] 1 is "No Impact" and 10 is "Greatly Impacted."

mood, morale, and quality of life of elderly residents by providing companionship, social interaction, and personalized, one-to-one services.[5] Staff in a variety of settings also reported that the involvement of Learn and Serve participants made it possible for professional staff to focus their efforts and improve the quality of services to their clients. It is important to note that few if any of the local programs are likely to have conducted formal studies to document the impact of Learn and Serve participants on their clientele or the community (see Exhibit 6.7 for examples of agency comments). However, the assessments of agency staff do reflect the professional judgements of those working directly with the students and community members. In the absence of formal, targeted community impact studies, these assessments stand as the best available evidence of that the Learn and Serve programs are making a difference in the lives of service recipients and their communities.

Taken together, the listings of service activities and the host agency ratings point to a substantial contribution by Learn and Serve participants to meeting the "unmet human, educational, environmental, and public safety needs of the United States." While the primary focus of Learn and Serve is on the development of program participants through their involvement in service, it is clear that Learn and Serve participants are providing an impressive array of services to their communities and that these services are highly regarded among the schools, community agencies, and other institutions with whom the students are working. As is discussed in Chapter 7, these services were also valued highly in monetary terms and represent a substantial net addition to the resources in the community. In the end, it seems clear that the Learn and Serve programs in the study were having a positive impact not only on their participants, but on the broader community.

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[5] The telephone interviews asked host agency staff to describe specific impacts or benefits associated with the services provided by the student volunteers. Figures are based on an analysis of those responses. For the educational impacts, 48 of 64 agencies where students provided education-related services noted gains in academic skills, engagement, or student self-esteem as an impact from the service. For health and elder care programs, 23 out of 36 respondents indicated that the student volunteers had a positive impact on the elders' mood or quality of life.

Exhibit 6.7

EXAMPLES OF IMPACTS OF SERVICE IN EVALUATION SITES

Education-Related Services: Improving Academic Skills and Student Self-Esteem

The children showed improved reading skills and improved self-concept, as well as having a sense of connectedness. (Caprock, tutoring program)

The program fostered a big brother/big sister relationship. The high school students acted as role models, improving students' attitudes towards school work. (Caprock, tutoring program)

The program has improved attendance, lowered the dropout rate, and contributed to raising the end of the year scores. Volunteers made an impact on students' outlook for the future. (Marion, tutoring program)

The students are good role models—they are visible, professional, take education seriously—and the students they tutored showed improved academic functioning, work habits, and self-esteem. (North Olmsted, tutoring program)

Student grades, self-esteem, and behavior improves. (Vista, tutoring program)

The program enhances the IEP (individual education plan) objective—to achieve goals faster and in a higher percentage. The program frees teachers up for other activities and to see their students in smaller groupings. (North Olmsted, school for developmentally disabled children)

Elder Care Services: Improving Quality of Life

Participants were aware of the presence and absence of the volunteers. The program improved patient attitudes and moods as a result of contact with the volunteers. (North Olmsted, Adult Day Care)

Nurses were freed from paperwork and allowed to spend more time with clients. The attention of students also helped to mitigate the loneliness of seniors. (North Olmsted, visiting nurses program)

Seniors benefit from the caring one to one attention. It improves their self-esteem. (Rochester, senior citizen project)

Students provide another check on the welfare of elders, as well as socialization and intergenerational contacts. The program has saved elders' lives. (Scotia, Key Call program)

Public Safety and Community Improvement: Improving the Community

The Peace Education Day program produced a decrease in fighting, behavior problems, and verbal aggression. (Taos, community problem solving/conflict resolution project)

Students improved the appearance of the community. Residents now take more pride in the community, and the park is used for community events and celebrations. (Nocona, park improvement project)

The land for the park had been vacant for 40 years—the whole county will benefit from the park and is very excited about the progress of the kids work. (Wakulla, park project)

Now that the park is nicer, homes around the park are being refurbished—the neighborhood is growing and becoming nicer. (Menasha, Legacy Park project)

CHAPTER SEVEN

INTEGRATING SERVICE-LEARNING INTO SCHOOLS

The third major goal for the national Learn and Serve program is to create new service-learning opportunities for school-aged youth and to do so through the integration of service-learning into the educational process. Learn and Serve grants in this regard can be seen as having two fundamental purposes: the development or expansion of permanent service-learning programs and their institutionalization in the schools, and more broadly the integration of service-learning into academic curriculum and instruction on a larger scale.

In large part, ***the evaluation sites in this study have met the first of these goals: almost all of the programs in the study have become well-established and appear likely to continue after the end of their Learn and Serve grants***. The programs generally have the support of school administrators, and service-learning is well-regarded among the school faculties as a whole.

At the same time, the Learn and Serve grants have been less successful in promoting large-scale integration of service-learning into curriculum and instruction. Despite the general support for service-learning among teachers and administrators, few of the sites have engaged in organized efforts to expand the use of service within the school or the district, and during the two years that the sites were followed for the evaluation, there was no increase in the proportion of teachers using service-learning or measurable changes in teaching methods or school climate. Though some schools were able to involve a substantial proportion of their teachers in service-learning — particularly those schools with a school-wide commitment to service — in most cases service-learning remained a relatively contained effort involving a limited number of educators.

This chapter examines the integration of service into the schools. Two major question guide the analysis:

1. Did the Learn and Serve grants help to establish permanent, ongoing service-learning programs or opportunities in the participating schools?
2. To what extent did the grants have a broader impact on the participating schools, in terms of increased use of service-learning or changes in instruction or school climate?

The analysis is based on data from two major sources: interviews with program staff, teachers, and school administrators conducted during three rounds of site visits and regular telephone calls, and data from school-wide teacher surveys conducted at each of the sites at the beginning and end of the evaluation period (Fall 1995 and Spring 1997). Over 700 teachers responded to the first faculty survey in 1995, and approximately 600 responded to the follow-up survey eighteen months later.[1]

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[1] The faculty surveys were distributed school-wide at each of the seventeen evaluation sites and were completed anonymously by the teachers. As such, it is important to note that the Fall 1995 and Spring 1997 surveys are not matched pairs. Rather, they represent an independent cross-section of the faculty in the schools at those two points in

THE INSTITUTIONALIZATION OF SERVICE

As noted above, the primary institutional goal for Learn and Serve is the creation of new service opportunities through the establishment and expansion of service-learning opportunities in elementary and secondary schools and community-based organizations. That goal was largely accomplished in the seventeen evaluation sites. In all but one of the sites, service-learning activities continued through the follow-up year, and in fifteen of the seventeen sites the programs have continued or appear likely to continue beyond the end of the Learn and Serve grant.

The institutionalization of service-learning at the evaluation sites has taken on several different forms, based in large part on the history and structure of the program:

- At six of the sites — Caprock, Hillside, and Vista High Schools, the Futures Academy in Buffalo, and Wanamaker and East Scranton Middle Schools — service-learning was originally or became an integral part of the school's mission. At those sites, service-learning has been built into the basic structure and curriculum of the schools and is clearly supported by the school administration. While several of the schools are still receiving Learn and Serve funds, it is clear that there is a commitment to service that extends beyond the scope of the grants and that support for service has been built into everyday school operations.
- In nine other sites — North Olmsted, Menasha, Hempstead, Coral Park, Taos, Scotia and McDowell High Schools and Nocona and Wakulla Middle Schools — service-learning developed within the context of a single course or program and often as the province of one or more committed teachers. In those sites, service has become institutionalized as part of single academic or service-learning course. While there is not necessarily a broad, school-wide commitment to service, service-learning has gained the support of the school administrators and the teachers' salaries are covered by regular district funds. Though the loss of Learn and Serve funds will likely restrict some program activities in those sites (for example, where grant funds were used to pay for transportation or special events), the service-learning focus and the courses themselves appear likely to continue.

Exhibit 7.1 summarizes the status of institutionalization in the sites at the end of the evaluation.

It is worth noting that, to a degree, these are programs that should be expected to continue -- they were selected for the evaluation in part because they were relatively well-established. At the same time, most were still only a few years old, and in that context the degree to which the programs were supported and expected to continue was striking. In North Olmsted, for example, the SITES program has persisted through a change in district Superintendents and three principals and is now expanding service-learning to other classes in the school and other schools in the district. One of the principals at the high school noted that the program had become "too popular to be cut," even in the face of budget cuts throughout the district. At Coral Park High School, an administrator remarked that if the intergenerational program at that school ended, the elders in the community would be up in arms. In Nocona, the teacher who organized the service-learning course went on to run another program, but was replaced and the course continued despite the change in personnel.

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time. Of the 715 surveys completed at baseline, 531 were from high school teachers and 184 from middle schools. Of the 603 surveys returned at follow-up, 396 were from high schools and 207 from middle schools.

Exhibit 7.1
INSTITUTIONALIZATION OF SERVICE AT THE EVALUATION SITES AT FOLLOW-UP (FALL 1997)

Status of Institutionalization	Number of Sites	Percent of Sites
Service institutionalized on a school-wide basis (part of school-wde mission and/or curriculum)	6	35.3%
Service institutionalized as part of one or more regular courses	9	52.9%
No institutional commitment to service	2	11.8%
Total	17	100%

Source: Site visit and telephone interviews

At several of the sites, institutionalization has also been accompanied by the expansion of service-learning. That is, the Learn and Serve grants have not only established the original program, but also provided some impetus for the growth of service-learning beyond its original scope. In some cases, growth has taken place through the expansion of existing programs to accommodate additional students; in other sites, service-learning efforts have expanded from the initial site to additional schools.

- In Amarillo, Texas, where Caprock High School is located, the school district secured a district-wide grant and moved Caprock's service-learning coordinator to the district level. Under that grant, the district has created a service-learning curriculum guide and provided training and technical assistance to teachers in all the district schools. By 1997, service-learning activities had been established in all of the district's schools.
- At North Olmsted High School, the SITES program doubled the number of students involved by establishing a second set of SITES classes and initiated a regular series of school-wide service activities organized by SITES program participants. In 1997, under a new Learn and Serve grant, the SITES coordinators are working with interested teachers to integrate service-learning in ten additional courses in the high school and have begun working to establish service-learning programs at the district's middle and elementary schools as well.
- At Menasha and Hempstead High Schools, the service-learning teachers have expanded service by adding a second service-learning class, and in Crawfordsville, Florida, the service-learning coordinator for the dropout prevention program at Wakulla Middle School has moved to the high school to help integrate service into the high school's program for youth at risk of dropping out.

Altogether, some degree of expansion was evident at nine of the seventeen sites, though as discussed further below, more often as the result of informal efforts or the expansion of efforts by the original teachers than from organized professional development. Expansion in that regard appears more to reflect the commitment of the original grant recipients than a policy-level effort to integrate service-learning more broadly in the schools.

Finally, at two of the sites, the Learn and Serve programs did end or need to be considered at-risk, highlighting some of the difficulties that schools and communities can face in building a permanent service-learning presence.

- At one school, the departure of the teacher who had secured the Learn and Serve grant marked the end of the program. That program had been operated as part of a separate at-risk initiative in relative isolation from the rest of the school and, as a result, had few links into the school as a whole. With the departure of the teacher, interest in service-learning at the school effectively ended.
- At the second school, the Learn and Serve grant funded two part-time service coordinators who worked with teachers throughout the school. The district decided not to pursue a second grant, and without the grant funds the coordinator position was ended. While some service activities will continue at the school, they are unlikely to do so on as organized or widespread a basis as under the grant.

FACULTY ATTITUDES AND SUPPORT FOR SERVICE

The institutionalization of service in the evaluation sites was accompanied by generally positive attitudes towards service learning among teachers and administrators at the schools. Both the faculty surveys and interviews with school staff indicated that, at least at the conceptual level, service-learning had a relatively broad base of support.

As part of the evaluation, the evaluation team surveyed teachers at the evaluation sites to learn about their attitudes and experience with service-learning. The surveys took place at the beginning of the 1995-96 school year and at the end of the 1996-97 year, approximately eighteen months apart. The surveys were distributed to as many of the teachers at each school as possible, generally through faculty or department meetings. The surveys were returned anonymously, sealed in envelopes, to encourage candid responses.

At both points in time, teachers at the evaluation sites reported generally positive attitudes towards service-learning and its potential role in education. Over 90% of the teachers in the fall of 1995 saw service-learning as a means of improving student attitudes towards school, increasing career awareness and exposure to social justice issues, improving student self-esteem, and increasing student social development and involvement in community affairs. Over 80% felt that service-learning was likely to increase academic achievement, and 75% thought that it might have a positive effect on student drug or alcohol abuse. The responses were similar on the follow-up survey in Spring 1997. Like the program participants themselves, almost all the teachers at the evaluation sites believed that students should be encouraged to participate in community service (94% at baseline, 95% at follow-up), but only half believed that service should be required. A large majority of the teachers themselves were active volunteers, with over 75% reporting that they had volunteered in their own community over the past twelve months (Exhibit 7.2). There were few differences on these questions between middle and high school teachers. The one exception was that middle school teachers were somewhat more likely than their high school colleagues to believe that all students should be required to participate in service (58% vs. 47%).

Exhibit 7.2
FACULTY ATTITUDES TOWARDS SERVICE-LEARNING

Survey Item	Fall 1995	Spring 1997
Percent of teachers who believe that service is "extremely likely" or "somewhat likely" to produce the following outcomes.[a]		
Improved attitudes towards school	90.0	90.1
Increased academic or intellectual achievement	82.0	84.0
Increased career awareness	96.4	95.6
Increased exposure to social justice issues	92.5	89.2
Increased personal development (e.g., self-esteem)	96.0	94.6
Reduced involvement in risk behaviors (such as alcohol or drug abuse)	75.2	69.9
Increased social development (e.g., social responsibility, leadership skills)	96.1	94.8
Increased student involvement in school and community activities	94.3	90.8
Percent of teachers who believe all students should be encouraged to participate in community service	93.6	95.1
Percent of teachers who believe all students should be required to participate in community service	45.1	50.8
Percent of teachers who have taken part in volunteer activities in their communities in past 12 months	75.9	76.9

[a] Respondents were asked: "How likely do you think it is that a service-learning program can produce the following outcomes for students?"

Source: Faculty Surveys in Fall, 1995 and Spring, 1997 at the seventeen evaluation sites. For the Spring 1995 surveys, N=715 for all sites, N=531 for high schools, and N=184 for middle schools. For the Spring 1997 surveys, N=603 for all sites, N=396 for high schools, and N=207 for middle schools. Sample sizes for individual items vary slightly due to item nonresponse.

A generally high degree of support for service was also evident among key administrators at the seventeen evaluation sites. As part of the site visit assessment at each school, the evaluation field staff questioned the service-learning program staff, other teachers, and school administrators about the degree of administrative support for the program. In all seventeen of the sites the principal was aware of the program, and in sixteen of the seventeen, service-learning was seen by the principal as contributing to the mission of the school. Perhaps more important, in fourteen of the sites staff were able to point to ways that the principal had acted to support the program, generally by arranging transportation or substitute teachers, helping with scheduling issues and the like. In some schools the building administrator was clearly a more active and supportive participant than in others, but in most of the sites the Learn and Serve programs had the operating support they needed.

USE OF SERVICE LEARNING AMONG TEACHERS

While there was widespread support for the *concept* of service-learning, relatively few teachers in the evaluation sites were actually using service-learning in their classrooms, and the proportion of teachers reporting the use of service-learning actually dropped slightly over the course of the study. At baseline, 28% of the faculty responding to the survey reported that they were using service-learning in their own classrooms; the figure was 24% among those responding to the follow-up survey. While this change is more likely to reflect differences in the two samples than an actual decline in use, the generally modest level of use of service-learning is striking given the positive attitudes towards service at the schools. Thirty-three percent of the teachers at baseline and 39% at follow-up reported that they were involved in service activities outside of their own classrooms — through school wide projects or after school clubs — suggesting a somewhat greater involvement in organizing volunteering at the school that in integrating service into academic instruction (see Exhibit 7.3).

Exhibit 7.3
USE OF SERVICE-LEARNING BY TEACHERS

Survey Item	Fall 1995	Spring 1997
Percent of teachers currently using service-learning in their classroom	28.0	24.0
Of those currently using service learning, percent who have:		
Integrated service into a core academic subject	52.9	60.1
Operate a separate service-learning course	45.1	33.3
Other	22.3	21.7
Percent of teachers currently involved in service activities within the school other than in their own classroom	33.0	39.3

The use of service-learning was substantially higher among middle school teachers and among teachers in the schools where there was a school-wide commitment to service (note that there is considerable overlap among those two groupings). Middle school teachers were twice as likely to use service in their classrooms as their high school counterparts. Interestingly, the levels of non-classroom service were much closer between the two groups, suggesting that community service was supported at both levels, but that the middle schools were more likely to integrate service into classroom instruction (Exhibit 7.4).

When the survey responses are broken down between sites with a school-wide service-learning commitment and those with single courses, there are similar differences in the use of service-learning. Among the school-wide sites an average of 40-47% of the teachers reported using service-learning in their classes, versus 15-19% in the sites with more limited programs. Clearly, where the goal is to encourage the widespread use of service, whole-school strategies are much more likely to achieve that result (see Exhibit 7.5).

Exhibit 7.4
USE OF SERVICE-LEARNING BY TEACHERS BY SCHOOL LEVEL

	Fall 1995	Spring 1997
High Schools		
Currently Use Service Learning in the classroom	20.7	17.9
Of those currently using service learning:		
Integrated into a core academic subject	50.9	57.4
A separate service-learning course	41.5	32.4
Other	21.7	20.6
Currently involved in service activities within the school other than in their own classroom	30.7	37.8
Middle Schools		
Currently Use Service Learning in the classroom	48.9	35.9
Of those currently using service learning:		
Integrated into a core academic subject	55.2	62.9
A separate service-learning course	49.4	34.3
Other	23.0	22.9
Currently involved in service activities within the school other than in their own classroom	37.7	41.4

Among those teachers using service in their classroom, approximately 50-60% have integrated service into a core academic subject — a social studies, math, science, or English class. Thirty to 40% report using service in a separate service-learning class, and approximately 20% use service-learning in some other context — possibly as an advisory period or afterschool program. There is some indication of a shift towards increased integration of service. Overall, the proportion of teachers reporting the use of service in an academic class rose from 53% to 60% during the period of the evaluation, and the proportion reporting that they used service in a separate service-learning course dropped from 45% to 33%. These figures may suggest that, over time, the teachers who are using service are increasingly building it into their core instruction.

EFFORTS TO INCREASE THE USE OF SERVICE-LEARNING

The relatively modest use of service-learning in many cases reflects some of the barriers faced by teachers interested in introducing new forms of instruction into their classes. Those barriers range from concerns about meeting new state content standards and testing requirements, to limited planning and preparation time, to the need to choose from a growing array of instructional reform options.

However, based on the responses to the faculty surveys and the site visit interviews, it is also clear that there have been relatively few organized efforts to increase the use of service-learning

Exhibit 7.5
USE OF SERVICE-LEARNING BY TEACHERS
BY PROGRAM TYPE

	Fall 1995	Spring 1997
School-Wide Service Schools		
Currently Use Service Learning in the classroom	46.6	40.7
Of those currently using service learning:		
Integrated into a core academic subject	60.6	71.6
A separate service-learning course	43.3	28.4
Other	23.1	17.3
Single Program Schools		
Currently Use Service Learning in the classroom	19.1	15.2
Of those currently using service learning:		
Integrated into a core academic subject	43.8	43.9
A separate service-learning course	47.2	40.4
Other	21.3	28.1

within the evaluation sites. While, several of the sites in the study have expanded service programs to additional students and schools, for most teachers, information about service-learning has only come by word of mouth: across the sites, only one quarter of the teachers reported ever having taken part in training or professional development related to service-learning.

As part of the faculty surveys, teachers were asked if they were familiar with the Learn and Serve program in their schools and, if they were, how they had learned about the program. At baseline and follow-up, approximately 60% of the teachers had heard about the program. Most often teachers reported that they knew of the program through informal means — approximately 70% learned through word of mouth from other teachers. Somewhat less than half (44-45%) had learned of the program through a presentation at a faculty meeting, and roughly 30% from a memo, newsletter or printed notice; only 14% had learned about the program through a formal in-service training session (Exhibit 7.6).

Teachers were also asked if they had ever participated in training or professional development related to service-learning. Across the sites, 26% of the teachers at baseline and 27% at follow-up reported participation in training. For those who had participated in training, the most common form was a brief orientation session (cited by 60%); roughly one quarter of the teachers who reported participating in training reported attending a full-day or multi-day workshops. Put differently, approximately 75% of the teachers in the evaluation sites had never participated in any form of professional development on service-learning, and as few as 6-7% (25% of the 25% who had been in training) indicated that they had participated in full-day or multi-day workshops.

Exhibit 7.6
FAMILIARITY WITH LEARN AND SERVE PROGRAM AND PARTICIPATION IN PROFESSIONAL DEVELOPMENT

Survey Item	Fall 1995	Spring 1997
Percent of teachers familiar with the Learn and Serve program in their school	59.3	64.4
How teachers learned about the program		
Word of mouth from teachers	69.6	76.7
Word of mouth from students	35.5	43.5
Memo, newsletter article, printed notice	30.9	32.1
Presentation at faculty meeting	44.0	45.1
Formal in-service training workshop	14.3	14.6
One-on-one or small group meeting with program coordinator	26.8	28.9
Other	6.5	10.1
Percent of teachers who ever participated in training or professional development related to service-learning	25.5	27.2
If participated, type of training/professional development		
Brief orientation	60.1	60.0
Half-day workshop	36.5	26.3
Full-day workshop	26.4	28.8
Multi-day training session	23.6	24.4
Other	9.5	5.6

As with the use of service, there were substantial differences in professional development experiences between middle and high school teachers, and between school-wide and single class programs. Middle school teachers were nearly twice as likely to have participated in some form of professional development, though much of that difference can be attributed to participation in brief orientation sessions — middle school teachers do not appear more likely to have participated in more intensive training sessions than their high school colleagues (Exhibit 7.7).

Teachers in school-wide programs were nearly three times more likely to have participated in some form of professional development than those in schools with more limited service-learning programs. Roughly half of the teachers in the school-wide programs reported participating in training at baseline and follow-up, versus 13-17% of the teachers in the other schools (Exhibit 7.8).

Exhibit 7.7
FAMILIARITY WITH LEARN AND SERVE PROGRAM AND PARTICIPATION IN PROFESSIONAL DEVELOPMENT BY SCHOOL LEVEL

	Fall 1995	Spring 1997
High Schools		
Percent of teachers familiar with the Learn and Serve program in their school	52.4	59.7
How teachers learned about the program	71.0	78.7
Word of mouth from teachers	39.0	48.3
Word of mouth from students	30.5	31.3
Memo, newsletter article, printed notice	37.9	41.3
Presentation at faculty meeting	12.1	10.9
Formal in-service training workshop	19.9	19.1
One-on-one or small group meeting with program coordinator	7.7	11.3
Other		
Percent of teachers who ever participated in training or professional development related to service-learning	20.4	23.5
If participated, type of training/professional development		
Brief orientation	54.7	49.5
Half-day workshop	31.1	25.3
Full-day workshop	31.1	33.0
Multi-day training session	22.6	25.3
Other	12.3	7.7
Middle Schools		
Percent of teachers familiar with the Learn and Serve program in their school	79.3	73.5
How teachers learned about the program	66.9	73.5
Word of mouth from teachers	28.9	36.1
Word of mouth from students	31.7	33.3
Memo, newsletter article, printed notice	55.6	51.0
Presentation at faculty meeting	18.3	20.4
Formal in-service training workshop	40.0	44.2
One-on-one or small group meeting with program coordinator	4.2	8.2
Other		
Percent of teachers who ever participated in training or professional development related to service-learning	40.2	34.5
If participated, type of training/professional development		
Brief orientation	68.1	73.9
Half-day workshop	44.4	27.5
Full-day workshop	19.4	23.2
Multi-day training session	25.0	23.2
Other	5.6	2.9

Exhibit 7.8
FAMILIARITY WITH LEARN AND SERVE PROGRAM AND PARTICIPATION IN PROFESSIONAL DEVELOPMENT BY PROGRAM TYPE

	Fall 1995	Spring 1997
School-Wide Service Schools		
Percent of teachers familiar with the Learn and Serve program in their school	75.9	81.1
How teachers learned about the program		
Word of mouth from teachers	61.8	76.1
Word of mouth from students	27.6	35.0
Memo, newsletter article, printed notice	29.4	28.2
Presentation at faculty meeting	65.3	51.5
Formal in-service training workshop	29.4	22.7
One-on-one or small group meeting with program coordinator	31.2	35.0
Other	5.9	11.7
Percent of teachers who ever participated in training or professional development related to service-learning	51.6	46.8
If participated, type of training/professional development		
Brief orientation	64.0	64.9
Half-day workshop	43.9	26.6
Full-day workshop	28.1	30.9
Multi-day training session	25.4	21.3
Other	3.5	1.1
Single Program Schools		
Percent of teachers familiar with the Learn and Serve program in their school	51.5	55.7
How teachers learned about the program		
Word of mouth from teachers	75.0	77.1
Word of mouth from students	41.0	50.0
Memo, newsletter article, printed notice	32.0	35.0
Presentation at faculty meeting	29.1	40.2
Formal in-service training workshop	3.7	8.4
One-on-one or small group meeting with program coordinator	23.8	24.3
Other	7.0	8.9
Percent of teachers who ever participated in training or professional development related to service-learning	13.4	17.1
If participated, type of training/professional development		
Brief orientation	53.1	53.0
Half-day workshop	23.4	25.8
Full-day workshop	23.4	25.8
Multi-day training session	20.3	28.8
Other	20.3	12.1

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CHANGES IN SCHOOL CLIMATE AND INSTRUCTION

Given the short timeframe for the evaluation and the relatively limited expansion of service-learning within the schools, it is not surprising that the faculty surveys show little change in either instructional practices or perceived school climate during the course of the evaluation. As part of the surveys, teachers were asked to indicate how often they used a variety of instructional approaches that incorporated or reflected individualized and experiential learning strategies. These included hands-on learning, use of work or community-related situations and materials, applied exercises or projects, interdisciplinary teaching, guest speakers, and student work on projects in the community. Teachers were also asked to indicate the degree to which a variety of student behaviors (absenteeism, tardiness, physical conflict, disrespect for teachers, etc.) were perceived to be problems in the school.

As Exhibit 7.9 shows, there was virtually no change in the mix of instructional strategies that faculty members reported using over the course of the evaluation. Again, it is important to recognize that the period covered by the evaluation was relatively brief in terms of institutional change in schools, and as schools with well-established service-learning programs, the evaluation sites may have experienced substantial shifts in teaching prior to the evaluation.

However, the data do tend to confirm the point that service-learning had not led to widespread changes in instruction in the schools. While a large majority of the teachers reported regularly using hands-on learning techniques, applied exercises and projects, and individualized learning strategies, only 20% reported having students work on projects in the community (a figure consistent with the proportion using service-learning), and fewer than half reported using work or community-related situations or guest speakers on a regular basis. One reasonable inference is that teachers are more likely to adopt new instructional strategies when they can be applied within the classroom — for example, the introduction of applied exercises. However, when new strategies require moving outside the classroom (or collaborating with others, as in team and interdisciplinary teaching), teachers are much less likely to take on new techniques.

The responses to the questions about perceived school climate also showed relatively little change among the teachers as a whole or among the high school teachers as a group. Among the middle school faculty, however, there was a substantial increase in the degree to which student behaviors were perceived to be a problem in the schools. Given what we know about the role of service in those schools, it would be difficult to ascribe any change in perceived climate to the introduction of service-learning. It is much more likely that the changes captured by the survey reflect the larger movement of at-risk behaviors down into the middle schools.

STRENGTHS AND WEAKNESSES OF INSTITUTIONALIZATION

The experience of the seventeen schools in the evaluation point to several major conclusions. First, to a large degree, schools were able to achieve the basic goals of the Learn and Serve grants — the establishment or expansion of service-learning programs for their students.' In all but two of the sites, the programs that received Learn and Serve funds have become well-established in the schools and appear likely to continue beyond the end of the grant.

Exhibit 7.9
USE OF INSTRUCTIONAL STRATEGIES AND PERCEIVED SCHOOL CLIMATE

Survey Item	Fall 1995	Spring 1997
Percent of teachers indicating that they used the following approaches "often" or "very often" in their classes:		
Hands-on learning	84.3	86.0
Work or community-related situations and materials	45.5	43.9
Individualized learning processes (e.g. self-paced, one on one)	70.3	68.4
Applied exercises or projects	81.4	81.8
Team teaching	38.8	36.1
Interdisciplinary teaching	51.0	50.0
Guest speakers from local businesses or the community		
Student work on projects in the community	24.9	22.6
	21.0	20.4
Percentage of teachers responding that the following are a "moderate problem" or a "serious problem" in their schools:		
Student absenteeism	66.8	67.5
Student tardiness or class cutting	62.1	66.4
Physical conflicts among students	33.2	40.3
Student vandalism or theft	33.5	34.9
Student disrespect for teachers	52.8	60.9
Substance abuse by students	52.5	56.7
Racial/ethnic conflict among students	30.6	38.7
Student apathy	72.3	75.4

Second, the experience of the seventeen sites also highlights some of the difficulties involved in integrating service more broadly into the curriculum and instruction in the schools. For most of the schools, and particularly those in which service was focused on a single class or program, involvement in service-learning was concentrated among a small group of teachers. Relatively few of the sites had initiated formal, organized efforts to expand the use of service-learning in the school, and few teachers had received any formal training. Participation in training and the use of service was much higher within the middle schools in the study and the sites with a school-wide service philosophy, but on the whole, teachers were more likely to support the concept of service-learning than to adopt the practice.

Finally, the lack of a broader impact and integration does not appear to be the result of active opposition to service-learning, but is more likely the result of a host of major and minor barriers to institutional change in the schools. Based on the interviews with teachers, program staff, and administrators, these barriers include lack of funds and available time for professional development (often less than one day per quarter); competing professional development priorities; concerns about meeting new content standards and graduation requirements; lack of planning time for teachers;

logistical problems and inflexible school schedules; and a continued emphasis on community service over service-learning. Over the long run, the broader integration of service will likely depend on increased emphasis on and support for professional development as well as efforts to help schools address these more fundamental structural issues.

CHAPTER EIGHT

RETURN ON INVESTMENT

The preceding chapters have outlined a variety of impacts and services produced by the Learn and Serve programs in the evaluation, including impacts on participant attitudes and behaviors, services delivered to the community, and the institutionalization of service-learning at participating schools. The final question for the evaluation is how these impacts compare to the cost of operating Learn and Serve programs. Are well-designed service-learning programs cost-effective? To the extent that a dollar value can be determined, what kind of return do these programs provide on the public investment?

This is one of the more challenging issues facing any service-learning evaluation, both because of the difficulties in determining real program costs and the problems inherent in assigning a monetary value to the impacts of service-learning. In terms of program costs, while the size of the Learn and Serve grant is clear, matching dollars often represent only rough estimates. The more integrated a program is into a school's daily operations, the more difficult it is to determine the school's real costs in supporting and administering the program. Assessing the value of the benefits of service involves other challenges. In many cases, the monetary value of the impacts of service-learning cannot easily be estimated. What, for example, is the dollar value of changes in civic attitudes? In other cases, the economic benefits of service are diffuse and, as a result, are difficult to measure: the improved value of property in a neighborhood after a park has been cleaned up. Still others involve longer-term impacts that cannot be measured within the timeframe of the evaluation: long-term impacts on school dropout rates or college graduation by program participants. As a result, at least some of the costs and much of the potential value of service-learning programs cannot be readily computed. The results presented here, then, have to be viewed as estimates outlining an approximate degree of return rather than a finely tuned calculation.

Given these limits, however, ***it is clear that the benefits of well-designed service-learning programs like those in this study substantially outweigh program costs.*** On average, the participants in the service-learning programs in the evaluation produced services for the community valued at nearly four times the cost of the program. While the dollar value of gains in participant attitudes or gains in student performance cannot be calculated, they also add to the benefit side of the equation. The net result is a substantial return on the public investment.

This chapter provides a summary of the estimates of program return on investment. First it outlines the process for estimating the dollar costs and value of the benefits for the service-learning programs in the evaluation and then presents the results of a basic set of cost/benefit calculations. Again, in reviewing the data in this chapter it is important to recognize that these are *estimates* — much of the impact of service-learning simply cannot be adequately measured in monetary terms. But even the rough estimates developed here provide a useful yardstick for assessing the relative costs and benefits of well-designed Learn and Serve programs. As such, they suggest that program benefits substantially outweigh program costs.

ESTIMATING PROGRAM COSTS

The return on investment analysis for the Learn and Serve evaluation is based on several basic estimates. On the cost side, program costs were estimated using reported expenditures for the 1995-96 program year from the evaluation sites, including both Learn and Serve grants and reported matching dollars. These figures were available for 12 of the 17 programs in the evaluation.[1] Total program costs were divided by the number of participants in the local programs to derive a figure for the average program cost per participant. The cost per participant for national administration of Learn and Serve by the Corporation for National Service was calculated by dividing the costs for the national administration of Learn and Serve by the total number of participants reported nationally. Together, these figures produce an average cost per participant for the programs used in this study of $149.12 (see Exhibit 8.1).[2]

ESTIMATING THE VALUE OF SERVICE

On the benefit side, the primary program benefit that can be estimated in monetary terms at this point in time is the value of the services the program participants provided to the community during the 1995-96 program year. Had there been a net impact on volunteer hours during the follow-up year, the value of these additional hours of service could also have been estimated.

To develop an estimate of the value of the services provided by participants during the program year, the evaluation surveyed the community agencies where students from the evaluation sites performed their service. Agencies were asked to estimate what they would pay someone to perform the same type of work at the same level of quality and productivity.[3] The survey responses were then used to calculate an average hourly wage for the service that students supplied. The evaluation then added an estimate of the value of the legally required fringe benefits to arrive at a total figure for

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[1] In four of the sites, the programs in the evaluation were part of large district-level initiatives and it was impossible to identify the costs for the specific program in the evaluation. In one other case, budget data was unavailable. Only sites that could provide complete information were included in the cost/benefit calculations.

[2] This figure may, in fact, overstate the program costs in some instances. If the district-wide initiatives were included in the estimate, the cost per participant would drop sharply -- to about $52 per participant. However, as noted, because we cannot identify the grant and matching dollars allocated to the specific schools in the study (and consequently do not know if they had a higher or lower than average share of district resources), it was decided to exclude the district-wide grants from the estimates. Nationally, the Corporation for National Service estimates that approximately $47 in Learn and Serve grants are spent per participant in Learn and Serve School and Community-Based programs; national figures on matching costs are not available.

[3] A copy of the survey can be found in Appendix I and the survey process is described in Chapter 6 (Service in the Community). In addition to asking about the hourly rate that the programs would pay, the telephone surveys also asked about fringe benefits and any materials and supplies contributed by the program

Exhibit 8.1
ESTIMATED PROGRAM COSTS AND COST PER PARTICIPANT IN THE EVALUATION SITES

Cost Categories	Total Cost	Cost Per Participant (N=3230)
Learn and Serve Grants	$337,842	$104.60
Matching Funds	$142,186	$44.02
National Administration	$1,615	$0.50
Total	$481,643	$149.12

Source: Program costs based on reported costs from the evaluation sites. Costs for national administration from the Corporation for National Service.

the value of the participant labor. Finally, the evaluation also developed estimates for the average hourly value of other services provided by the program. These included the value of materials and supplies provided by the program, the value of the administrative functions provided by program staff (for example, organizing and matching the program participants to the sites), and an estimate of the value of the service provided by nonparticipant volunteers — adults and short-term volunteers involved in the program. The nonparticipant labor was valued at the minimum wage.[4] The total represents the "supply price" or market value of the service provided through the programs: that is, an estimate of the amount organizations would pay for equivalent services outside of the program. Exhibit 8.2 shows the components of this estimate. The result is an estimate of $8.76 per hour of direct service.[5] This dollar estimate was then multiplied by the average hours of service performed by program participants in the twelve sites for which cost information was available (66.9 hours) to produce an average value of output per participant for the service performed in the programs. That figure is $585.87.[6]

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[4] Nonparticipant volunteers might include individuals who participate in a one-day clean-up project that was organized by the regular program participants or additional volunteers recruited by the program to work alongside the service-learning participants. As such, they represent additional volunteer resources generated by the program.

The other major potential area of return on program investment, of course, is the economic benefits from changes in participant behaviors. As reported in Chapter 3, the Learn and Serve programs in the study did produce short-term, post-program impacts on civic attitudes as well as impacts on school engagement and a marginally significant impact on grades. Unfortunately, at this point in time, we cannot attach a dollar value to any of these impacts. As noted earlier, attitudinal changes have no measurable dollar value. In the case of the school-related measures, there is research supporting the link between school achievement and academic skills and earnings. However, that research is not at a point that makes it possible to estimate the economic impact of increased grades or school engagement.[7] While it seems safe to assume that there is some economic benefit to these impacts, we do not attempt to place a dollar value on them.

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[5] This approach is known as a "supply price" approach to estimating the value of the participants' service and was the method used in estimating the value of output for the evaluation of Serve-America as well. See Alan Melchior and Larry Orr, *Final Report: National Evaluation of Serve-America*, Cambridge, MA: Abt Associates, December, 1995). As noted in that study, there are a number of trade-offs involved in any of the approaches to estimating the value of service. The major strength of the supply price method is that by focusing on the value of the labor supplied by students it allows use of a consistent method of estimation across a wide variety of programs and service activities -- construction projects, tutoring, assisting in nursing homes, etc. The common element in all of the service activities is that students are providing labor. Other strategies (for example, focusing on the free market value of the final products) would require the use of different methods for different types of projects. While feasible, this is a much more resource intensive process, and the costs of developing the estimates would likely be substantially greater than the value of the service itself.

The major drawback to the supply price approach is that this measures the value of the *inputs* in terms of service rather than the ultimate *benefits* to the community. As such, it likely underestimates the ultimate value of the service being provided. As such, the results of the analysis should be considered as representing a conservative estimate of the ultimate benefits of the service.

[6] In this analysis, the evaluation used reported hours of service from the programs because those hours could be directly tied to the host agencies' estimates of the value of the service provided. An alternative approach would be to use the net additional hours of volunteer service provided by program participants (that is, the measured impact of the program on volunteer hours), based on the information provided in the participant surveys. In this instance, the results are very similar. According to the participant impact analysis, program participants provided 41.23 more hours of service over a six month period than comparison group members (reported in Appendix D). When adjusted for the nine month school year, the estimated impact would be 61.85 additional hours of service. Using that figure, the total estimated value of service would be $541.81.

[7] See, for example, Gordon Berlin and Andrew Sum, *Toward a More Perfect Union: Basic Skills, Poor Families, and Our Economic Future* (New York: Ford Foundation, Project on Social Welfare and the American Future, Occasional Paper No. 3, 1988); and more recently, Richard Murnane and Frank Levy, *Teaching the New Basic Skills* (New York: Free Press, 1996). Both studies found a relationship between academic skill levels (based on test scores) and earnings among young people in several national studies. Neither study, however, examines grades as a measure of academic skills or attempts to establish a formula for a relationship between changes in grades or test scores and income.

Exhibit 8.2

VALUE OF PROGRAM OUTPUT PER SERVICE HOUR FOR THE 1995-96 PROGRAM YEAR

Average hourly value of:	Average Value Per Service Hour
Volunteer Labor	
Participant Labor[a]	$5.67
Fringe Benefits[b]	$0.97
Total Value of Labor	$6.64
Other Program Services	
Materials and Supplies[c]	$0.21
Administration and Overhead[d]	$1.33
Non-Participant Volunteer Labor[e]	$0.58
Total Value of Service Per Hour	$8.76

Source: Telephone interviews with host agencies in the evaluation sites for projects that took place during the 1995-96 academic year. Data is based on two rounds of interviews (Fall and Spring). (N=213)

[a] The average hourly rate that host agencies would be willing to pay someone to perform the same work as student volunteers at the same level of quality and productivity, based on agency responses to telephone interviews. Responses were weighted by the number of student service hours performed at each agency.

[b] The cost of legally required benefits (i.e., social security, worker's compensation, and unemployment insurance) was added to all participants wages. The cost of additional benefits (vacation, sick leave, health insurance) was added only for those projects where the host agency reported that someone hired to do the same work would receive those benefits. The source for the cost of the fringe benefits was U.S. Department of Labor, *Employer Costs for Employee Compensation*, March 1996.

[c] This amount includes only supplies and equipment provided directly by the program to perform the service project (such as tools and raw construction materials), and does not include materials donated by the host agency or by other organizations or individuals.

[d] This amount represents 20 percent of the participants' wages and benefits. The figure is based on the overhead rates reported by temporary help agencies, which provide recruitment, training, and placement functions similar to many of the service programs.

[e] Non-participants are adults or short-term volunteers involved in project activities -- for example, students involved in a one-day park clean-up activity that was planned and organized by regular program participants. The value of a non-participant hour of service is assumed to be minimum wage ($4.25 per hour) with no benefits.

RETURN ON INVESTMENT FOR LEARN AND SERVE

When brought together, the cost and benefit estimates show a positive short-term return on investment for the fully-implemented Learn and Serve programs in the evaluation. As shown in Exhibit 8.3, the value of the services provided by participants totals $585.87, a nearly 4 to 1 ratio of program benefits to costs. When calculated against the federal contribution, the ratio rises to a 5.6 to 1 return on the federal investments. Clearly, the benefits generated substantially outweigh the costs of the program.

In interpreting these figures, it is again important to emphasize that these are the costs and benefits of a select group of well-designed, fully-implemented service-learning programs. The costs for these programs are higher than for Learn and Serve programs nationally, but the relative intensity of the programs, with their higher than average service hours, also means that they likely provide more service than the average program as well. It is not clear whether lower cost, and possibly less intensive efforts would produce lower or higher levels of return on investment.[8] It is also critical to recognize that one of the key benefits of these more intensive programs is an increased level of participant impact when compared to less intensive efforts. If we were able to place a dollar value on those impacts, it seems likely that "well-designed, fully-implemented programs" like those in this study would show a substantially greater return on investment.

Even at this point in time, however, the experience of these programs does indicate that well-designed, fully-implemented service-learning programs can return substantially more to the community than the dollar cost of the programs themselves. The combination of high quality, well-regarded service to the community and positive post-program impacts for participants add up to a cost-effective investment of federal and local dollars.

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[8] The programs in the evaluation did have larger than average Learn and Serve grants. The average Learn and Serve grant for the programs in the evaluation was $27,085. This compares to an average of $12,905 among the 210 programs in the original site selection pool. On the other hand, the diversity of program models and implementation strategies in the field suggests that there is not a simple, linear relationship between program cost and intensity. Perhaps the most critical variable in cost is the degree to which service-learning is integrated into academic instruction. Where service is highly integrated, staffing costs are minimal, since the teachers are already on staff and teaching a full load of courses. In those instances a program may combine low costs and high numbers of service hours. Similarly, a free-standing course of program, requiring additional funds to pay staff, could have much higher costs. As one point of comparison, the programs studied in the earlier Serve-America evaluation had an average program cost of $160 per participant, though the programs have fewer average hours of service (49 hours per participant). The return on investment ratio for those programs was approximately 3:1.

Exhibit 8.3
ESTIMATED ANNUAL PROGRAM COSTS AND BENEFITS PER PARTICIPANT

Type of Cost or Benefit	Benefit (+) or Cost (-) to:		
	Participants	Community	Society
Operational Costs of Program			
Learn and Serve Grant	0	$104.60	$104.60
Matching Funds	0	$44.02	$44.02
Costs of National Administration	0	$0.50	$0.50
Total Operational Costs	0	149.12	149.12
Value of Service			
Value of Service During Program Year	0	$585.87	$585.87
Net Monetary Benefits	0	436.75	436.75
Other Benefits			
Increased Civic Attitudes	+	+	+
Increased School Engagement and School Grades	+	+	+

Sources: Reported program expenditures and service hours data from 12 of the 17 evaluation sites. national administrative cost data from the Corporation for National Service. Value of service data calculated from surveys of host agencies in the evaluation sites.

CHAPTER NINE
CONCLUSION

The Learn and Serve programs studied in this evaluation represent a select group of service-learning sites — programs that were chosen to represent the potential of well-designed, fully-implemented service learning initiatives. At the time of their selection, all of the programs in the evaluation had been in operation for more than a year and reported higher than average service hours and regular use of both oral and written reflection — all broadly accepted indicators of quality practice in service-learning. While each program had its own strengths and weaknesses, together they represent serious efforts to bring the ideals of service-learning and the federal community service legislation into practice.

The findings from three years of research show that well-designed service-learning initiatives are achieving many of the goals of the federal legislation (see Exhibit 9.1 for a summary of major findings). Program participants showed positive short-term impacts on a range of civic and educational attitudes and behaviors, including impacts on attitudes toward cultural diversity and service leadership; on involvement in volunteer activities; on attitudes towards school; and on school grades. For younger (middle school) participants, the service-learning programs also significantly reduced their involvement in several types of risk behaviors.

Participant assessments of their program experience were also very positive. More than 95% of the program participants reported that they were satisfied with their experience and that the service they performed was helpful to the community; 87% believed that they learned a skill that would be useful in the future (and 75% reported that they learned more than in a typical class). Through a series of face-to-face interviews, participants also made clear that their service experience had been meaningful and that through their service they had gained an increased understanding of their community, their academic work, and themselves.

The results from a one-year follow-up study indicate that many of these impacts do fade over time, with only marginal impacts on service leadership, school engagement, and math grades evident at follow-up. There is, in short, little evidence that one-time participation in even a well-designed service-learning program is likely to produce substantial long-term benefits. However, the follow-up data also suggest that students who continue their involvement in organized service over time are significantly more likely to continue to experience the benefits of participation.

While participants clearly benefited from involvement in service-learning, so did the communities in which the students served. Learn and Serve programs provided an impressive array of services to their communities, and those services were highly rated by the agencies where students performed their work. Ninety-nine percent of the agencies surveyed rated their overall experience with Learn and Serve as "good" or "excellent," and 96% reported that they would work with participants from the program again. Based on estimates of the value of the service provided by the

Exhibit 9.1
SUMMARY OF IMPACT FINDINGS

Post-Program Participant Impacts

- ***The Learn and Serve programs in the study had a positive post-program impact on the civic attitudes and volunteer behavior of program participants.*** Participants showed positive, statistically significant post-program impacts on three of four measures of civic attitudes in the study: attitudes toward cultural diversity, service leadership, and a combined measure of civic attitudes. Participants were also significantly more likely to be involved in volunteer service and to have volunteered more than twice as many hours as students in the comparison group.
- ***The Learn and Serve programs also had a positive impact on participants' educational attitudes and school performance during program participation***, with statistically significant impacts on a measure of school engagement and on math grades, and a marginally significant impact on science grades and core grade point average. Taken together, the educational impacts suggest that service-learning is having a positive influence on school performance while youth are in the program.
- ***The service-learning programs in the study had no significant effects on measures of social and personal development for the participants as a whole.*** However, the programs did have a positive impact on arrests and teenage pregnancy for middle school students and a marginally significant impact on teenage pregnancy for the participants as a whole. Both findings suggest that service-learning can play a role in reducing risk behaviors, particularly among younger students.

Participant Impacts at Follow-Up

- ***The Learn and Serve programs showed little evidence of longer-term impacts at follow-up (Spring, 1997).*** For the participant group as a whole, the only impacts evident at follow-up were marginally significant impacts on service leadership, school engagement, and science grades. The follow-up data also showed a decline in English grades for participants, though the average English grades for participants remained higher than those of comparison group members at the time of the follow-up.
- ***In general, students from the high school programs showed a stronger pattern of impacts at follow-up than students from the middle schools.*** High school students showed positive, statistically significant impacts on service leadership and science grades, and marginally significant impacts on school engagement and volunteer hours. For the middle school students the only significant impact at follow-up was a marginally significant impact on arrests.
- ***Follow-up impacts were also significantly stronger for participants who had continued their involvement in organized service activities during the follow-up year when compared to those for students who reported no organized service involvement in the follow-up period.*** Students who continued their involvement in organized service show positive impacts on measures of service leadership, service hours, and school engagement, as well as marginally significant impacts on involvement in service, college aspirations, and consumption of alcohol. For several of these measures, the gains for "repeaters" were significantly larger than those for students who did not continue their involvement in service during the follow-up year.

Subgroup Impacts

- ***Both post-program and follow-up data both indicate that the impacts of service-learning were shared relatively equally by a wide range of youth (white and minority, male and female, educationally and economically disadvantaged, etc.).*** While some groups showed stronger impacts in one area or another (for example, minority students showed relatively strong impacts on grades both at post-program and at follow-up), there were no consistent differences in impacts among the subgroups, and most of the positive post-program impacts were shared across the board.

Exhibit 9.1
SUMMARY OF IMPACT FINDINGS, CONTINUED

Participant Assessments

- ***Participants in the Learn and Serve programs gave the programs a strong, positive assessment.*** More than 90% of the program participants reported that they were satisfied with their service experience and that the service they performed was helpful to the community; 87% reported that they had learned a skill that would be useful in the future; and 75% reported developing a good personal relationship through service, generally with other students and/or a service beneficiary.

Services in the Community

- ***Learn and Serve participants provided an impressive array of services to their communities.*** Altogether, students in the seventeen evaluation sites were involved in over 300 projects each semester, providing over 150,000 hours of service over the course of the year.
- ***The services provided by Learn and Serve participants were highly rated by the agencies where students performed their work.*** Ninety-nine percent of the agencies rated their overall experience with the local Learn and Serve program as "good" or "excellent," and 96% reported that they would use participants from the program again. On average, agencies indicated that they believed that the services provided by students had "greatly impacted" the individuals and the communities being served.

Integrating Service into Schools

- ***The service-learning programs in the study were strongly supported by administrators and fellow teachers on average,*** and ***the large majority of programs appear likely to continue*** to operate after the end of their Learn and Serve grant.
- However, ***few of the sites engaged in organized efforts to expand the use of service within the school or district.*** During the two years in which the sites were followed, there was no significant increase in the proportion of teachers using service-learning or measurable change in teaching methods or school climate.

Return on Investment

- ***Based on an analysis of program costs and the value of the volunteer services provided by program participants, the dollar benefits of well-designed service-learning programs substantially outweigh the costs.*** On average, participants in the programs in the study produced services valued at nearly four times the program cost during the 1995-96 program year. While the dollar value of participant gains in attitudes cannot be calculated, they do represent an additional return to the public investment.

programs, Learn and Serve participants provided nearly $4 in service for every $1 spent on the program. Even without calculating the value of the program impacts on participants, the Learn and Serve programs in the study provide a substantial dollar return on the program investment.

The Learn and Serve programs were somewhat less effective as vehicles of large-scale educational change. While most of the programs were apparently able to establish themselves as permanent, ongoing efforts within their schools, the expansion of service-learning within the schools and the integration of service-learning into the school curriculum was limited. It is important to recognize that the period covered by the evaluation was relatively short in terms of institutional change, and that service-learning was often only one of many priorities competing for time and resources in the schools. However, it is clear that institutionalization and integration of service-learning in the schools remain major challenges for Learn and Serve.

Taken together, ***these findings make a strong case for service-learning as a tool for the civic and educational development of middle and high school-aged young people***. At a relatively low cost per participant, the programs in the study have helped to strengthen civic attitudes, volunteer behavior, and school performance while providing needed services to the community. In almost all of the sites, the programs have proven sufficiently compelling to garner the support of school administrators and teachers and have established an ongoing presence in their institutions. At a fundamental level, the programs in the evaluation suggest that Learn and Serve can meet its goals and have an impact on the attitudes and behavior of young people across the country.

IMPLICATIONS FOR POLICY AND PRACTICE

There are a number of implications for both policy and practice in the evaluation's findings.

First, the results from this group of "well-designed" programs suggest that program quality does make a difference — that well-designed, fully-implemented programs are likely to have a significant impact on their participants and communities. To the extent possible, then, the Corporation and the states need to continue their emphasis on improving the quality of local service-learning programs, both through professional development and through continued work on developing and disseminating work on "best practices." As noted throughout this report, the programs in the evaluation represent a select group of sites — those that met criteria for well-established, fully-implemented service-learning programs. At the time the sites were selected, programs that met those criteria — higher than average service hours, regular use of oral and written reflection, in operation for more than one year and linked to a formal course curriculum — represented what might be considered the upper tier of Learn and Serve programs, approximately 15% of the Learn and Serve sites nationally. As such, the evaluation results represent the potential impacts for service-learning as programs mature and the quality of implementation increases throughout the system. In order to achieve those results on a system-wide basis, the Corporation and the states need to continue to work to improve both the understanding of service-learning and local practice.

Second, it is equally important to recognize the limits of the Learn and Serve grants as vehicles for institutional change and to define a clearer set of goals and expectations for the integration of service into schools and curriculum. If the goal of Learn and Serve is to establish new service-learning opportunities, the programs in the evaluation largely succeeded, though differing widely in approach and numbers of students involved. If the goal, however, is to support the integration of service-learning on a school or district-wide basis, the Corporation and the states need to look carefully at how Learn and Serve grants can best make that happen. Based on the experience of the sites in this study, for example, school-wide strategies appear far more likely to engage teachers in service-learning and promote its use by a relatively high proportion of a school's faculty than grants supporting service in a single classroom. School-wide programs may also be somewhat more likely to persist after the Learn and Serve grant period ends, since they are less dependent on a single person and the costs are spread across the school's budget. At the same time, single classroom programs can grow if there is support and a clear expectation for expansion. The Corporation and the states need to look at what kinds of strategies they want to support and under what circumstances.[1]

Third, the evaluation findings also suggest the need for continued research on the longer-term and cumulative impacts of service-learning. While the evaluation found clear short-term impacts from program participation, the findings from the follow-up study show little evidence that one-time involvement in even a well-designed service-learning program is likely to have substantial long-term impacts. That finding is consistent with the broader literature on youth programs that has consistently found that short-term interventions tend to have short-term impacts, and that longer-term interventions are generally required to produce long-term effects.[2]

However, the differences between "repeaters" and "non-repeaters" raise a number of issues that warrant further investigation. To what extent does ongoing involvement in service-learning have a cumulative impact on program participants? While the students in this study who continued their involvement in service experienced greater impacts than the "non-repeaters," it is not clear what kinds of programs those students were involved in during the follow-up period. Do the limited impacts for the "repeaters" in this study suggest a declining return to program participation, or do they simply reflect a relatively low level of program participation during the follow-up year. Would ongoing involvement in a "well-designed," multi-year program produce larger long-term benefits, or is there a "saturation" effect? Is there a threshold level of service-learning, a "critical mass" after which program effects are likely to persist, or do young people need regular, ongoing reinforcement for the lessons and benefits of service? Given the capacity of well-designed service-learning programs to produce solid post-program impacts, one of the critical questions for policy and practice is how schools and communities can structure their programs to extend those impacts. In most cases, the answers to these questions require studies of multi-year service-learning programs as well as studies that follow participants over the longer-term. But the results from the follow-up study suggest that they are issues worth exploring.

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[1] There is also a need for further research on the issue of institutionalization. One of the key issues, for example, is to begin to define one or more models for institutionalization. In the case of school-wide efforts, are there necessary precursors to change? Are there critical steps that schools have taken in integrating service school-wide? Is there a timetable for integration? Similarly, if a program starts as a single classroom effort, are there steps that need to be taken if it is to expand school-wide? Here, too, what kind of timeframe should one expect for institutionalization? Is a three-year grant enough, or should some provisions be made for longer-term investments?

[2] See, for example, the evaluation of the Summer Training and Education Program, which provided summer jobs and educational enrichment for high school aged youth. That evaluation found that the program produced substantial short-term learning gains, but few long-term impacts. "STEP's major lesson for policy makers and leaders is that short-term interventions...do fill critical gaps in the lives of disadvantaged young people, and do provide youth with much-needed boosts and experiences, but cannot alone produce long-term change." See Gary Walker and Frances Viella-Velez, *Anatomy of a Demonstration: The Summer Training and Education Program (STEP) from Pilot Through Replication and Postprogram Impacts* (Philadelphia: Public/Private Ventures, 1992). In contrast, the evaluation of the Quantum Opportunities Project, a four-year dropout prevention initiative (that included community service as one of its elements) found that a long-term program could have a substantial, longer-term impact on participant outcomes. See Andrew Hahn and Janet Reingold, *Quantum Opportunities Project: A Brief on the QOP Pilot Program* (Waltham, MA: Brandeis University, 1995).

Finally, it is important to recognize that this study only a first step (though an important one) in improving our understanding of impacts and effective practices in service-learning. But, while many of the findings need to be confirmed and elaborated upon through further, targeted studies, the data presented here makes a strong case for the effectiveness of well-designed service-learning programs, in terms of impacts on program participants and valued services to their communities. As such, it lays a solid foundation for future program and policy work aimed at strengthening and expanding the current Learn and Serve program efforts.

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National Evaluation of Learn and Serve America School and Community-Based Programs

Final Report

APPENDICES

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APPENDIX A

SITE SELECTION SAMPLING STRATEGY

The national Learn and Serve K-12 evaluation includes seventeen evaluation sites in nine states: California, Florida, North Carolina, New Mexico, New York, Ohio, Pennsylvania, Texas, and Wisconsin.[1] In order to identify the sites for the evaluation, a multi-stage site selection process was conducted by Brandeis University and Abt Associates. Each of these stages is described below.

In the first stage, an initial sample was drawn from all school-based Learn and Serve grantees[2] that received 1994 funding from the Corporation for National Service (CNS). The base for this sample included a total of 78 out of a total of 104[3] grantees. From this initial sample, 10 states were randomly selected using a probability-proportional-to-size (PPS) algorithm. Two criteria were used to select the 10 sites: (1) the relative CNS funding in each state, and (2) geographic diversity. In order to produce a sample that represented the geographic and funding distribution of the Learn and Serve school-based programs, the states were sorted into five regions (Western, Southern, Midwest, Northeast, and Mid-Atlantic).[4] The sampling algorithm then used this ordering to select a systematic PPS sample. The 10 states that were selected (California, Florida, Indiana, New Mexico, New York, North Carolina, Ohio, Pennsylvania, Texas, and Wisconsin) represented a pool of over 500 subgrantees.

The second stage of the sampling process involved drawing a random sample of subgrantees within each of the 10 states. The purpose of this second round of sampling was to identify a subset of approximately 250 Learn and Serve programs. The number of programs associated with a subgrantee was used to draw the PPS sample of subgrantees. After this subgrantee sample was selected, a Program Information telephone survey was successfully completed with 210 programs in the 10 states. This survey achieved two objectives. First, local programs confirmed reported information, and the evaluation team learned more specifics about the diversity of local program operations. Second, the survey provided the evaluation with consistent information on selection criteria for use in selecting evaluation sites.

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[1] An additional site in Pennsylvania was dropped because of incomplete reporting.

[2] Learn and Serve school-based "grantees" are grants that are awarded to states or other "grantmaking entities" by the Corporation for National Service. State grantees then subgrant on a competitive basis to local "subgrantees," generally school districts or individual schools. In some instances these subgrants represent the local "programs" under Learn and Serve; in other instances districts further distribute the money to individual schools or classes which represent the local "program." This "program" level of activity serves as the final unit of sample for this evaluation.

[3] The other 26 programs were community-based programs. The evaluation team and the Corporation for National Service decided to exclude community-based programs from the Learn and Serve K-12 Evaluation. There were several reasons for the decision to focus the study on school-based programs. The primary reason was the limited number of study sites. To proportionally represent community-based sites only 3 of the 20 sites would have been community-based; this small sample size would not have provided sufficient data for community or participant impact analysis of community-based programs. Furthermore, as school-based programs were the primary focus of the Learn and Serve initiative (representing 85 percent of its funding), targeting the evaluation on school-based only programs afforded the study the opportunity to represent the diversity of the school-based programs across the country.

[4] CNS' regional definitions for their Learn and Serve K-12 program officers were used to define regions.

Based on responses to the surveys, a stratified random sampling process was used to select programs for inclusion in the final sampling pool using a total of seven criteria, including two key school characteristics:

- Program size: At least 25 students participating in the L&S program in order to generate a sufficient sample size.
- School level: Participants were enrolled in middle and/or high school.[5]

In addition, the programs were required to meet five operational criteria associated with mature, intensive, fully-implemented programs:

- **Intensity of Service Hours**: programs where total hours of service was above the median for the Program Information surveys. The median for high school programs was 30 hours; for middle schools, 21 hours.
- **Reflection on at Least a Weekly Basis**: a specific time was set aside in the L&S program each day or week for students to talk about their service experience.
- **Required Writing**: as part of their participation in L&S, students are required to write about their service work in journals or directed writing assignments.
- **Academic Integration**: programs where service-learning is integrated into a Math, English, Science, or Social Science class as a means of teaching those subjects, or where a separate service-learning class focuses on Community Service.
- **Time in Operation**: programs were required to have been in operation for at least one year to limit the impact of start-up problems.

Thirty programs met these specific criteria (approximately 15% of the sample pool), twenty-one high school programs and nine middle school initiatives. In order to expand the pool of potential middle school sites, an additional 15-20 programs in the 10 target states were identified and contacted to gather program information. A final review of the telephone questionnaires and a second round of telephone contacts eliminated a number of these programs from further consideration. Several programs were dropped because they were proposing substantial changes in their 1995-96 program (e.g., changing the program from a stand-alone service course to an academic-integrated service model). Other programs had a late start in 1994-95 (e.g., Spring 1995) or had not yet begun program operation by late spring, and would not meet the time in operation requirement. Still others were not planning to operate their Learn and Serve program or would not be receiving Learn and Serve funding for the 1995-96 school year. The remaining programs were then contacted to assess their interest and the viability of participation. The list below identifies the final seventeen sites selected for the evaluation.

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[5] Elementary school programs were not part of the Year 2 evaluation primarily because they would require a substantially different, age-appropriate impact assessment strategy and tools from those used in middle and high schools.

Middle-School Sites

Sierra Ridge Middle School, Pollock Pines, CA
Wakulla Middle School, Crawfordsville, FL
Futures Academy, Buffalo, NY
East Scranton Intermediate School, Scranton, PA
Wanamaker Middle School, Philadelphia, PA
Nathaniel Rochester Middle School, Rochester, NY
Nocona Junior High School, Nocona, TX

High School Sites

Vista High School, Bakersfield, CA
Hillside Continuation High School, Upland, CA
Coral Park Senior High School, Miami, FL
Scotia-Glenville High School, Scotia, NY
Hempsted High School, Hempsted, NY
Taos High School, Taos, NM
McDowell High School, Marion, NC
North Olmsted High School, North Olmsted, OH
Caprock High School, Amarillo, TX
Menasha High School, Menasha, WI

Appendix B
IMPACT ESTIMATION METHODS

This appendix discusses the analysis sample and the statistical methods used to estimate the post-program and follow-up participant impacts reported in Chapter 3 of this study. As noted in that chapter, two different statistical techniques were used to analyze the participant impact data at post-program and follow-up. This appendix discusses the strengths and weaknesses of the two techniques and their implications for the impact results in the study. The appendix also provides information on methods used in assessing the differences between the two approaches, on the approach used in the subgroup analysis, and on the use of sample weights, baseline-variable imputations, and other minor statistical adjustments made in the course of the analysis.

CORE IMPACT ANALYSIS

This study investigates the effect of service learning on 29 different outcomes. These 29 can be roughly divided into four types: civic attitudes, volunteer behavior, performance in school, and involvement with risk behavior (such as drinking alcohol). In estimating program impacts, the primary statistical concern is a common one in program evaluation: avoiding selection bias. This appendix discusses the selection issues in this study. It also discusses the statistical techniques used to derive unbiased estimates.

Results from two statistical models are presented. One we call "ANCOVA" (Analysis of Covariance), and the other we call "Difference-in-Difference" (DD)[1]. In the present study the ANCOVA model generally ***overestimates*** program impacts. The DD model, in contrast, generates unbiased estimates for most outcomes. The only exception is the civic attitude outcomes; in that case, the DD model generates ***conservative*** estimates of program impacts.[2]

This evaluation employs two samples: a post-program sample and a follow-up sample. The selection-bias and model-choice issues are nearly identical in the two. Because the post-program sample is simpler, it is discussed first.

POST-PROGRAM SAMPLE

The Learn and Serve evaluation focuses on a set of service-learning programs that took place during the 1995-1996 academic year. The study surveyed students at the beginning of the school year (the "baseline" observation) and at the end (the "post-program" observation) (Exhibit B.1). Some of the students were enrolled in service learning during the year (these are the "participants") and some did not (the "comparisons"). Sample sizes can be found at the end of this appendix. (Exhibit B.16).

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[1] The Difference-in-Difference estimator is also known in the literature as the "first difference" or "change score" estimator. As explained below, it can also be interpreted as arising from a "fixed effect" model.

[2] We are greatly indebted to Dr. Christopher Winship for helping us understand the estimation issues presented in this appendix. The discussion here also owes much to two publications: Charles Judd and David Kenny, *Estimating the Effects of Social Interventions*, Cambridge University Press, 1981, especially Chapter 6; and Paul Allison, "Change Scores as Dependent Variables in Regression Analysis," *Sociological Methodology*, 1990.

Exhibit B.1
STRUCTURE OF POST-PROGRAM SAMPLE

Group	Observation 1 (Baseline Period) Fall 1995	Academic Year 1995-1996	Observation 2 (Post Period) Spring 1996
Participant		took service learning	
Comparison		no service learning	

Which students took service learning in the intervention year? For estimation, it would have been ideal to assign the students randomly to participant and comparison groups. In that way post-program group differences could be attributed to the program alone (or to pure chance). Random assignment, however, was not possible in this study. Participation instead depended on at least three influences. First, some students themselves could influence whether they took service learning — a factor that was especially clear when the course was an elective. Second, some teachers may have influenced participation—they may have been able to assign students to courses. Third, we (the members of the evaluation team) exerted some influence. For example, when we chose a group of participants for the study, we attempted to locate comparisons who were as 'similar' to the participants as possible in terms of demographic characteristics and academic status.

Given the role of students and teachers in determining participation, there is little reason to expect that the comparisons would be similar to the participants at baseline. Indeed, there are systematic differences between groups. Specifically, ***even at baseline (before taking service learning), the participants score higher on the outcomes that the program attempts to increase***. As Exhibit B.2 shows, the participants scored better at baseline in 28 of the 29 outcomes; that is, they scored higher on the outcomes in which higher is better, and lower on the outcomes in which lower is better. In 19 of the outcomes the difference was statistically significant.

Exhibit B.2
POST-PROGRAM SAMPLE: PARTICIPANT GROUP VERSUS COMPARISON GROUP OUTCOMES AT BASELINE

Outcome	Sample Size	Participant Mean	Comparison Mean	Difference	Significance
Search Institute					
Social welfare subscale	1047	18.87	17.80	1.07	***
Community involvement	1047	19.24	17.84	1.40	***
Total	1047	38.11	35.64	2.47	***
Cultural diversity	1050	3.50	3.40	0.11	***
Greenberger Scale					
Communication skills	1048	2.96	2.87	0.10	***
Work orientation	1048	2.87	2.74	0.13	***
Service leadership	1050	3.04	2.76	0.28	***
Total civic attitudes	1045	107.00	100.55	6.44	***
Volunteered in last 6 months	1028	0.86	0.75	0.11	***
Average hours volunteered	925	62.51	32.26	30.25	***
Connell					
Educational competence	978	3.18	3.08	0.10	***
School engagement	1049	3.28	3.21	0.07	**
English grade	852	2.59	2.31	0.28	***
Math grade	761	2.39	2.26	0.13	none
Social studies grade	829	2.60	2.39	0.21	**
Science grade	735	2.50	2.41	0.09	none
Overall GPA	781	2.66	2.54	0.12	*
Core GPA	905	2.50	2.36	0.14	**
Failed one or more courses	1011	0.13	0.16	-0.03	none
Days absent	878	6.98	8.05	-1.07	*
Days suspended	519	0.13	0.12	0.00	none
Graduated 4-year college or beyond	1031	0.86	0.78	0.08	***
Homework: 3 hours per week	1034	0.72	0.64	0.07	**
Consumed alcohol	722	0.35	0.39	-0.04	none
Used illegal drugs	700	0.16	0.17	-0.01	none
Arrested	724	0.11	0.12	-0.01	none

Exhibit B.2 *(continued)*
POST-PROGRAM SAMPLE: PARTICIPANT GROUP VERSUS COMPARISON GROUP OUTCOMES AT BASELINE

Outcome	Sample Size	Participant Mean	Comparison Mean	Difference	Significance
Pregnancy	721	0.06	0.05	0.01	none
Fought, hurt, or used weapon	726	0.29	0.34	-0.05	none
Total number of risk behaviors	689	0.99	1.08	-0.09	none

In this exhibit as well as Exhibits B.11 and B.12:

*** indicates that the difference in means is statistically significant at the .01 level.
** indicates .05 level
* indicates .10 level.

Given the roles of student and teacher choice, it is predictable that the participants would be "better." It is especially predictable for the civic attitudes. More civic-minded students are more likely to choose the course, and teachers (because they want the service to be successful) may assign more civic-minded students to it.

POST-PROGRAM SAMPLE: STATISTICAL MODELS

Given the issues of selection bias, how do we estimate program impacts? In the course of this study, we have used two methods: a model we characterize as the ANCOVA or "Analysis of Covariance" approach, and a second that is characterized as the DD or "Difference-in-Difference" method. The section that follows describes the two statistical methods and the difference between them.

Consider an outcome Y. Let Y_0 be the baseline value and Y_1 the post value. Let X be a vector of demographic and other background regressors.[3] Let P be an indicator variable capturing 1995-1996 Participation (P=1 if enrolled and 0 otherwise). The DD model is:

$$Y_1 - Y_0 = P\beta + X\gamma + \epsilon, \tag{1}$$

where β is the effect of service learning on Y. Note that this model can be thought of as arising from an underlying fixed effect model. If:

$$Y_{it} = \theta_i + P_{it}\pi + Tx_i\phi + \upsilon_{it}, \tag{2}$$

then subtracting Y_{i0} from Y_{i1} gives an equation similar to equation (1), viz:

$$Y_{i1} - Y_{i0} = P_{i1}\pi + X_i\phi + \eta_{i1}. \tag{3}$$

The Analysis of Covariance model is:

$$Y_1 = Y_0\alpha + P\delta + X\gamma + \epsilon, \tag{4}$$

where δ is the effect of service learning on Y.[4]

Moving Y_0 to the right-hand side in Equation (1), it may seem at first sight that DD is a special case of ANCOVA: namely, the case with α restricted to equal 1. Notice however, that whereas Y_0 is ***uncorrelated*** with ϵ in the ANCOVA model, it is surely ***correlated*** with ϵ in the DD model. Generally, there is no simple sense in which one of these models is a special case of the other. They are best thought of as separate models.

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[3] X includes a constant term. The specific regressors are listed in Exhibit B.18.

[4] In this report, when we say "ANCOVA" we mean equation (4). We realize that the term refers to a general technique and, indeed, that the DD model can itself be seen as an instance of ANCOVA. It is for lack of a better alternative that we use the general name. Critiques of the ANCOVA model in this study are critiques of equation (4) in this study; they are not critiques of the general method known as ANCOVA.

Both models can best be understood in terms of the underlying means: specifically a two by two matrix of outcome means. Consider the underlying means for "Service Leadership" in Exhibit B.3.

Exhibit B.3
POST-PROGRAM SAMPLE MEANS: SERVICE LEADERSHIP

Group	Baseline	Post-Intervention
Participant	2.97	3.10
Comparison	2.76	2.76

At baseline, the participant mean was 2.97, and the comparison mean was 2.76.[5] At post-program, the participant score was 3.10, and the comparison score remained 2.76.

We can expand the exhibit by taking differences both down the columns and along the rows, giving Exhibit B.4.

Exhibit B.4
POST-PROGRAM SAMPLE MEANS AND DIFFERENCES: SERVICE LEADERSHIP

Group	Baseline	Post-Intervention	Difference
Participant	2.97	3.10	.13
Comparison	2.76	2.76	.00
Difference	0.21	0.34	

The bottom ***row*** shows that at baseline, the participants were scoring .21 higher than the comparisons. (This gap reflects the self-selection of higher scoring people into service learning.) At the end of the program, the gap increased to .34. The right-most ***column*** shows that between baseline and post-program, the participant score increased by .13. The comparison score did not change at all—it stayed constant at 2.76.

The DD model is intuitively appealing. It first notes that the comparison mean did not change between baseline and post-program. It then assumes that ***if the participants had not taken service learning***, then their score ***also*** would not have changed. The comparisons didn't take service learning and their score didn't change. Therefore, DD assumes, if the participants had not taken service learning their score wouldn't have changed either. Since in fact the participant score ***increased by .13***, the DD method estimates that service learning increases participants' scores by this amount. This DD estimate is .13 with a t-statistic of over 4.

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[5] These are regression adjusted means. Thus, the comparison means will equal those in Exhibit B.4 but the participant means will not. The difference is just due to adjusting for the X variables: at time t the participant mean is defined as the control mean plus the P coefficient in a regression of Y_t on P and X.

Reading across the bottom row provides a second perspective on the DD results. At baseline the participants exceeded the comparisons by .21. DD assumes that if the participants had not taken service learning, the gap would have remained at .21. Since in fact the gap grew by .13, DD attributes that increase to service learning.

The ANCOVA model assumes in contrast that the comparison experience does ***not*** represent what would have happened to the participants absent service learning. Rather, ANCOVA assumes that the initially high scoring participant group would have fared ***worse*** without service learning than the comparison group members -- that is, that their scores would have declined in the absence of any intervention. (One reason they might have done so is between-group regression to the mean. This is discussed below.) By assuming a decline in participant scores, ANCOVA estimates more positive (i.e., beneficial) program impacts.[6]

In the case of Service Leadership, we know that the comparison mean stayed constant between baseline and post-program. It stayed constant at 2.76. Despite this, the ANCOVA model assumes that if the ***participants*** did not take service learning, their mean score would have ***fallen*** by .10 (from 2.97 to 2.87). By assuming that the participant score would have fallen without service learning (even though the comparison score did not), ANCOVA gives additional credit to the program: an estimate of .23 instead of .13.

This difference in results is also evident when reading across the row of differences. The participant-comparison gap was .21 at baseline. ANCOVA assumes that in the absence of service learning this gap would have shrunk by almost half—to only .11 at post-program. Because in fact the gap was .34, the ANCOVA model attributes to service learning an impact of .23.

It is helpful to consider a series of examples in this vein—relating both ANCOVA and DD to the underlying means. A first example is each student's grade in English class (Exhibit B.5).

Exhibit B.5
POST-PROGRAM SAMPLE MEANS AND DIFFERENCES: ENGLISH GRADE

Group	Baseline	Post-Intervention	Difference
Participant	2.55	2.47	-.08
Comparison	2.31	2.31	+.00
Difference	0.24	0.16	-.08

As in the last example, the comparison English score stays the same between baseline and post-program—here at 2.31. The participant scores fall by .08. The DD estimate is therefore -.08: the participants fell by .08 relative to the comparisons. (We put the estimate in the bottom right cell.) This is a small change, and according to the DD method it is not statistically significant (t-statistic of 1.0).

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[6] If lower-scoring people had been selected into service learning, then ANCOVA would generate lower impacts compared to DD.

The ANCOVA method paradoxically generates a ***positive*** program impact in this case. During the year that participants took service learning and comparisons did not, participant scores ***fell*** whereas comparison scores stayed the same. Yet ANCOVA concludes that the intervention ***increases*** students grades by .07. ANCOVA reaches this paradoxical conclusion because of its strong assumptions. Although the comparison mean stayed constant when ***they*** did not take service learning, ANCOVA assumes that the participant mean would have fallen by fully .15 had ***they*** not taken it.

One way to understand the difference between the models is to note that ANCOVA places less importance on the difference between participants and comparisons ***at baseline***. This is especially clear in examples such as this one. At post-program, the participants are scoring .16 higher than the comparisons. ANCOVA attributes part of this to service learning because it doesn't put as much weight on the size of the gap at baseline. It notes that the gap is high at post-program, but it discounts the fact that the gap at baseline was even greater.

Recent alcohol consumption increased between baseline and post-program by .05 for both comparisons and participants (Exhibit B.6).

Exhibit B.6
POST-PROGRAM SAMPLE MEANS AND DIFFERENCES: CONSUMED ANY ALCOHOL LAST 30 DAYS

Group	Baseline	Post-Intervention	Difference
Participant	.36	.41	+.05
Comparison	.39	.44	+.05
Difference	-.03	-.03	.00

Since the participant score increased by the same amount as the comparison score, DD concludes that there is no evidence the intervention affected the participants. ANCOVA on the other hand assumes that even though the comparison rate increased by .05 without service learning, the participant rate would have only increased by .03 without service learning. As a result, ANCOVA provides the conclusion that service learning lowers the drinking rate by .02.

Both groups' Educational Competence scores fell by .03 during the intervention year (Exhibit B.7).

Exhibit B.7
POST-PROGRAM SAMPLE MEANS AND DIFFERENCES: EDUCATIONAL COMPETENCE

Group	Baseline	Post-Intervention	Difference
Participant	3.16	3.13	-.03
Comparison	3.08	3.05	-.03
Difference	+.08	+.08	-.00

The DD method infers that there is no apparent program effect. ANCOVA in contrast finds a positive effect of .03 that is ***statistically significant*** at the 10 percent level. Even though participants' scores decreased by the same amount as comparisons' scores, ANCOVA concludes that there is a statistically significant positive program impact. DD says that the data are inconclusive.

As a final example, consider "Total Civic Attitude" (Exhibit B.8).

Exhibit B.8
POST-PROGRAM SAMPLE MEANS AND DIFFERENCES: TOTAL CIVIC ATTITUDE

Group	Baseline	Post-Intervention	Difference
Participant	105.3	106.8	1.5
Comparison	100.6	99.8	-0.8
Difference	4.7	7.0	2.3

The comparison score fell by .8. DD assumes that ***without*** service learning, the participant score would also have fallen by .8. Because the participant score rose by 1.5 ***with*** service learning, DD concludes that service learning raises scores by 2.3. This estimate is statistically significant at the 1 percent level. ANCOVA assumes that whereas the comparison score fell by .8, the participant score would have fallen by over three times as much—from 43.8 to 42.6. It therefore generates an estimate of 4.2 with a t-statistic of over 6.5

Which model is correct for this evaluation? For the initial phase of the evaluation, we used the ANCOVA model, for several reasons. First, it was a widely used and well-established model, and was the approach that had been used in both the Serve-America study and other service-learning studies. That decision was reinforced by the fact that, over the past 30 years, the statistical literature has been critical of the DD model. A number of articles in the 1960s and 1970s argued that the DD model was less precise and tended to produce downward-biased results (in part, because it ignored the issue of between-group regression toward the mean) and suggested that the ANCOVA model was superior.[7] In the last ten years, the literature has begun to change, rebutting the criticisms of the DD approach and pointing up the shortcoming of the ANCOVA model when selection bias is present. The net result is that the balance is now shifting back to DD as a less biased estimator.

In the course of this study, we began to look more closely at the question of selection bias when we began the analysis of the follow-up results, which involved issues about follow-up selection as well as the initial selection bias in the intervention year. That reexamination has led us to the following conclusions.

First, the ANCOVA models raise some serious concerns. They involve strong assumptions that lead to generous estimates of program impacts. ANCOVA can generate statistically significant positive impacts even when the underlying means show absolutely no evidence of an effect (or even when the means suggest a negative if insignificant impact). Winship notes that ANCOVA makes two assumptions. First, it assumes between-group regression to the mean. (It assumes that absent the intervention, the gap between participant and comparison means would narrow.) As discussed below, this assumption may at times be reasonable. Second, however (and this is the extreme assumption), ANCOVA assumes that the ***amount*** of regression to the mean equals the least-squares estimate of α in Equation (4).[8]

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[7] One frequently cited article in this literature is Frederick M. Lord, "Elementary Models for Measuring Change," in C.W. Harris, *Problems in Measuring Change* (Madison: University of Wisconsin Press, 1963). Also see Robert L. Linn and Jeffrey A. Slinde, "The Determination of the Significance of Change Between Pre- and Posttesting Periods," *Review of Educational Research*, vol. 41, no. 1 (Winter, 1977), 121-150.

Some authors have challenged this second assumption on the grounds that we never have the true measure of the baseline dependent variable and, as a result, we always have attenuation bias due to errors-in-variables. (The greater the attenuation bias, the greater the assumed amount of regression to the mean, and the greater the ANCOVA over-estimation.) Other authors note that even if we did have the true measure, there would still be no reason to expect that α just happens to give the correct amount of regression to the mean. Certainly there are cases in which there is no reason to expect ***any*** regression to the mean. In those cases the ANCOVA model can be estimated, and there is no reason for it to give the correct estimate ($\alpha=1$) even absent measurement error. In any event, the "bottom line" regarding ANCOVA in this study is that the ANCOVA estimates rely on strong assumptions that are favorable to the program. We believe these estimates are useful and informative (especially for comparison with earlier studies), but we acknowledge that they are generous.

The DD specification (like the fixed-effect model underlying it) is intuitively appealing. There is no compelling reason to doubt DD for most outcomes. The only caveat is that the DD estimates might be conservative estimates when the outcome to some extent ***defines*** program participation. To take a clear case, suppose we had an outcome Y^* that directly defined who would participate. That is, suppose that a person participated in the program if and only if their Y^*_0 exceeded a set value. Then in the absence of any intervention, one would expect some between-group regression to the mean. In that case, DD would generate conservative estimates because DD assumes no regression to the mean—in essence, DD would assume that the participants do better without service learning than they actually would.

None of our outcomes directly define program participation in this way. The civic attitude variables, however, might be seen as "loosely" or "partially" defining participation. To the extent that they do, it is reasonable to think of the DD estimates as correspondingly conservative estimates of program impacts—***lower bounds*** for the impacts. Notice that the bias will be small unless there is a large random component to civic attitudes (i.e., the bias will be small unless a person's civic attitudes vary a lot randomly from year to year).

The DD-ANCOVA choice will be revisited in the follow-up discussion below. The conclusion, however, will remain the same. ANCOVA generally overestimates impacts. DD is unbiased for the school-performance and risk-behavior impacts. For the civic attitude impacts, the DD estimates need to be viewed as conservative.

A common situation that arises in this study is that ANCOVA provides a statistically significant estimate and DD provides an estimate that is not statistically significant. The conservative approach is to accept the DD estimate. That does ***not*** mean, however, that we conclude there is ***no effect***. The correct interpretation of a statistically insignificant result is that the we cannot say whether there is an effect—the data are inconclusive. To be conservative here is not to be biased ***against*** the program; it is to refrain from drawing conclusions except when they are warranted.

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[8] Based on discussions with Christopher Winship, Department of Sociology, Harvard University.

Before turning to the follow-up sample, a final model-choice issue to consider is statistical power. At first sight it may seem that the ANCOVA estimates have more precision than the DD estimates. This is not necessarily true, however, given multicollinearity in the ANCOVA model (arising from the correlation of Y_0 and P). More generally, if we think of the DD specification as arising out of the fixed effect model, there is less reason to include the X vector. Including the Xs in the regression also gives rise to multicollinearity. In any event, one can achieve higher power without sacrificing unbiasedness by using larger sample sizes. Given the sample sizes in this study, DD can be sufficiently powerful. Consider the measure of Total Civic Attitude above. The DD impact estimate of 2.3 (increasing the comparison mean from 100.6 to 102.9) was statistically significant at the 1% level.

FOLLOW-UP SAMPLE

In addition to baseline and post-program observations, we also interviewed people a year after the end of the original service-learning programs (in the spring of 1997). This final "follow-up" observation enables us to estimate longer-term impacts. A service learning course might influence people while they are taking the course and immediately after the course (when the experience is still fresh in their minds), but do the impacts persist? Are they evident even a year later? How do people who take the course a second time fare in comparison with those who take it just once?

For answering these questions, the ideal experiment would have been to randomize twice. First, at baseline people would have been randomly assigned to participant and comparison. Second, after the first year the participants would have been randomly assigned again into two groups: one group participating the second year and one group not. The comparison group would ideally be denied service learning both years. With such a design, it would have been straightforward to estimate longer-term impacts by contrasting group outcomes at follow-up.

Although that would have been ideal from the point of view of estimation, it was not practical here. We have already seen that participation in the first year was non-random. In the follow-up year, there was more selection. Some of the original participants selected service learning in the follow-up year, and some did not. Likewise some of the original comparisons selected service learning in the follow-up year, and some did not.

There are four groups in the follow-up sample (Exhibit B.9).

Exhibit B.9
STRUCTURE OF FOLLOW-UP SAMPLE

Group	Observation 1 (Baseline) Fall 1995		Observation 2 (Post) Spring 1996		Observation 3 (Follow-Up) Spring 1997
		Academic Year 1995-1996		Academic Year 1996-1997	
I		Service learning		None	
II		Service learning		Service learning	
III		None		None	
IV		None		Service learning	

Group I took service learning in the first year but not the second. Group II took service learning both years. Group III took service learning in neither year. And Group IV took service learning in the second year but not the first.

To make the structure more transparent, let P indicate participation in the intervention year. Let P^*_P indicate follow-up participation by Group II. Let P^*_C denote follow-up participation by Group IV. Finally, let C indicate no participation in service learning (comparison). The follow-up sample structure can then be seen more clearly (Exhibit B.10).

Exhibit B.10
STRUCTURE OF FOLLOW-UP SAMPLE

Group	**Observation 1 (Baseline) Fall 1995**	Academic Year 1995-1996	**Observation 2 (Post) Spring 1996**	Academic Year 1996-1997	**Observation 3 (Follow-Up) Spring 1997**
I		P		C	
II		P		P^*_P	
III		C		C	
IV		C		P^*_C	

Sample sizes for the four groups can be found in Exhibit B.17.

In the follow-up year as with the intervention year, the better scoring students participated in service learning. Comparing Groups III and IV (Exhibit B.11), Group IV had higher scores for all of the civic attitude variables. They also had better grades, and for four of the six risk-behavior outcomes they had better (lower) baseline values. Comparing Groups I and II (Exhibit B.12), Group II scored higher in all of the attitude variables. They received higher academic grades, and for a majority of risk-behaviors, they had lower mean values.

Exhibit B.11

Follow-Up Sample: Comparison of Groups III and IV Outcomes at Baseline

Outcome	Sample Size	Group IV Mean	Group III Mean	Difference	Significance
Search Institute					
Social Welfare Subscale	303	19.28	17.85	1.43	***
Community involvement	303	18.77	17.88	0.90	**
Total	303	38.05	35.72	2.33	***
Cultural diversity	304	3.57	3.36	0.21	***
Greenberger Scale					
Communication skills	303	2.93	2.86	0.07	none
Work orientation	303	2.83	2.75	0.08	none
Service leadership	304	2.88	2.77	0.12	*
Total civic attitudes	303	106.25	100.31	5.94	***
Volunteered in last 6 months	299	0.88	0.70	0.18	***
Average hours volunteered	270	58.04	30.04	28.00	*
Connell					
Educational competence	294	3.06	3.05	0.02	none
School engagement	304	3.30	3.19	0.11	*
English grade	242	2.40	2.15	0.25	*
Math grade	236	2.31	2.18	0.12	none
Social studies grade	232	2.39	2.23	0.17	none
Science grade	215	2.34	2.33	0.01	none
Overall GPA	197	2.25	2.24	0.01	none
Core GPA	261	2.42	2.22	0.20	none
Failed one or more courses	263	0.16	0.21	-0.05	none
Days absent	214	13.94	8.28	5.66	***
Days suspended	182	0.23	0.18	0.04	none
Graduated 4-year college or beyond	299	0.84	0.72	0.11	**
Homework: 3 hours per week	296	0.71	0.66	0.05	none
Consumed alcohol	244	0.43	0.34	0.09	none
Used illegal drugs	233	0.11	0.16	-0.05	none
Arrested	245	0.11	0.13	-0.03	none
Pregnancy	243	0.04	0.10	-0.06	none
Fought, hurt, or used weapon	245	0.33	0.30	0.04	none
Total number of risk behaviors	230	1.00	1.06	-0.06	none

Exhibit B.12
FOLLOW-UP SAMPLE: COMPARISON OF GROUPS I AND II
OUTCOME AT BASELINE

Outcome	Sample Size	Group II Mean	Group I Mean	Difference	Significance
Search Institute					
Social welfare subscale	447	19.39	18.57	0.83	**
Community involvement	447	19.63	19.20	0.42	none
Total	447	39.02	37.77	1.25	**
Cultural diversity	447	3.53	3.52	0.02	none
Greenberger Scale					
Communication skills	447	2.98	2.98	0.00	none
Work orientation	447	2.94	2.85	0.09	*
Service leadership	447	3.12	3.02	0.10	**
Total civic attitudes	447	109.08	106.65	2.43	***
Volunteered in last 6 months	443	0.91	0.84	0.07	**
Average hours volunteered	408	68.59	61.57	7.02	none
Connell					
Educational competence	430	3.20	3.18	0.02	none
School engagement	447	3.35	3.30	0.05	none
English grade	321	2.89	2.41	0.48	***
Math grade	297	2.65	2.18	0.47	***
Social studies grade	292	2.76	2.48	0.28	**
Science grade	293	2.75	2.36	0.39	***
Overall GPA	271	2.87	2.44	0.43	***
Core GPA	331	2.76	2.36	0.41	***
Failed one or more courses	332	0.09	0.16	-0.07	*
Days absent	279	7.15	6.93	0.22	none
Days suspended	224	0.08	0.20	-0.12	***
Graduated 4-year college or beyond	443	0.85	0.86	-0.01	none
Homework: 3 hours per week	430	0.73	0.77	-0.03	none
Consumed alcohol	374	0.31	0.36	-0.05	none
Used illegal drugs	354	0.13	0.23	-0.10	**
Arrested	374	0.10	0.09	0.01	none
Pregnancy	368	0.04	0.08	-0.04	none
Fought, hurt, or used weapon	373	0.27	0.22	0.05	none
Total number of risk behaviors	349	0.87	0.95	-0.08	none

We estimate four follow-up models. There are two basic model types—one combining Groups I and II and one separating them. For both of these basic model types, we estimate ANCOVA and DD versions. In all specifications, P^*_C is included as a regressor to control for program participation by comparison group members in the follow-up year. This means, in effect, that the comparison group is Group III. That is, the comparison group consists of the students who did not take service learning in either year.

Follow-Up Estimator: Combining Groups I and II

The DD version of this model is:

$$Y_2 - Y_0 = P\beta + X\gamma + P^*_C\xi + \epsilon, \tag{5}$$

where Y_2 is the outcome measured at follow-up and β is the estimate of the follow-up effect of service learning on Y. The Analysis of Covariance version is:

$$Y_2 = Y_0\alpha + P\delta + X\gamma + P^*_C\zeta + \epsilon, \tag{6}$$

where δ is the estimate of the service learning effect.

By not distinguishing between Groups I and II, we are calculating an average effect for those who participated in the intervention year. We are estimating the follow-up impact ***averaging*** across those who took the program a second time and those who did not. Intuitively, this model compares two regimes. In one regime, everyone takes service learning one year, and then everyone gets to choose whether to take service learning in the second year. In the other regime, no one has the opportunity to take service learning. How much better off are the people in the first regime at the end of the second year? If people are given service learning one year, and then allowed (along with their teachers) to choose whether to take it a second year, how much better off would they be—compared to not letting them take it in either year? Our impact estimates answer this question.

The difference between ANCOVA and DD is the same at follow-up as at post-program. For brevity, consider only one outcome, Service Leadership (Exhibit B.13).

Exhibit B.13

FOLLOW-UP SAMPLE MEANS AND DIFFERENCES: SERVICE LEADERSHIP

Group/Groups	Baseline	Follow-Up	Difference
I and II (1995-1996 participants)	2.99	3.02	+.03
III	2.77	2.72	-.05
Difference	0.22	0.30	+.08

Group II started out at baseline with a score of 2.77. Their score fell by .05 to 2.72 at follow-up. The DD method assumes that this .05 decline represents what ***would*** have happened to the participant score had the participants not taken service learning. Because in fact the participant score increased by .03, the net increase of .08 [.03 − (-.05)] is the DD impact estimate.[9]

ANCOVA assumes that had the participants not taken service learning, their scores would have fallen much more than did the Group III scores. Specifically, although the Group III score fell by .05, ANCOVA assumes that the participant score would have fallen by .16 without service. The ANCOVA estimate is .19, with a t-statistic of over 5.

Follow-Up Estimator: Separating Groups I and II (Repeaters versus Non-Repeaters)

Group II (P then P^*_P) is the group of "repeaters." Group I (P then C) is the group of "non-repeaters." The second follow-up model estimates separate impacts for the two groups. Let P_I be an indicator variable capturing membership in Group I. Let P_{II} indicate membership in Group II. The DD version is:

$$Y_2 - Y_0 = P_I\beta^{NR} + P_{II}\beta^{R} + X\gamma + P^*_C\xi + \epsilon, \tag{7}$$

where β^{NR} is the estimated impact for non-repeaters and β^{R} is the estimated impact for repeaters. The ANCOVA version is:

$$Y_2 = Y_0\alpha + P_I\delta^{NR} + P_{II}\delta^{R} + X\gamma + P^*_C\zeta + \epsilon, \tag{8}$$

with δ^{NR} the impact for non-repeaters, and δ^{R} the impact for repeaters. For both (7) and (8) F-tests were used to test whether the repeater estimate equals the non-repeater estimate, i.e., tests of H_0: $\beta^{NR} = \beta^{R}$ and H_0: $\delta^{NR} = \delta^{R}$.

Exhibit B.14

FOLLOW-UP SAMPLE MEANS AND DIFFERENCES: SERVICE LEADERSHIP

Group/Groups	Baseline	Follow-Up	Difference
I (non-repeaters)	3.00	2.95	-.05
II (repeaters)	3.02	3.10	+.08
III	2.77	2.73	-.04
Non-repeater difference	.23	.22	-.01
Repeater difference	.25	.37	+.12

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[9] The baseline participant score is slightly different in Exhibit B.13 compared with Exhibit B.5 (2.99 versus 2.97). There are two reasons for this. First, we do not restrict the X vector to have the same effect in the two samples. Secondly, there is attrition between post-program and follow-up, and only those with follow-up scores are included in the follow-up sample.

Group III (the comparison group) saw their service leadership scores fall by .04 on average (Exhibit B.14). In contrast, the repeaters' scores increased by .08, implying a DD estimate of .12. This estimate is statistically significant at the 2 percent level. The non-repeaters' scores decreased by .05, implying a DD estimate of -.01. This estimate is not statistically significant, having an absolute t-statistic of just 0.3. Thus, according to the DD specification:

(1) The data indicate that if students takes service learning two years in a row, their service leadership scores will increase, on average.

(2) The data do not permit conclusions about the service leadership effect of taking the program just one year and not the next. There may or may not be an effect. The data are inconclusive.

ANCOVA assumes that in the absence of service learning, the repeaters' scores would have fallen by .17, on average. It assumes this even though there is a decrease of only .04 for Group III. It therefore generates a repeater impact of .25 with a t-statistic of 5.6. For the non-repeaters, ANCOVA generates the paradoxical result of a positive program impact of .10 with a t-statistic of 2.3. Even though the non-repeaters' scores ***fell*** relative to Group III, ANCOVA generates a significant positive impact. Even if service leadership does define participation to some extent, it is difficult to believe it would cause this much regression to the mean. With this strong assumption, and in contrast to DD, ANCOVA thus says that there is conclusive evidence of positive effects for both groups.

The conclusions for follow-up estimation are the same as for post-program estimation. ANCOVA tends to over-estimates program impacts. DD is unbiased for risk-behavior and school-performance outcomes. DD may, however, underestimate impacts for the civic attitudes. Thus, for risk-behavior and school-performance, we accept the DD estimates. For the civic attitudes, we note that the DD estimates may be conservative. For the service leadership example, to accept the DD model is to conclude (perhaps conservatively) that: (1) averaging across repeaters and non-repeaters, there was a statistically significant follow-up impact of .08; (2) for the repeaters considered separately, there was a statistically significant effect of .12; (3) for the non-repeaters, the data are inconclusive.

IDENTIFICATION TESTS

As part of the process of examining the differences between the ANCOVA and DD model, the evaluation team conducted some identification tests. These tests were possible because, with the follow-up, three data points were available. One test involved restricting the sample to the intervention-year participants (Groups I and II). We estimated a regression on this sample in which we tested for an effect of *follow-up* participation on *post-program* impacts. If a model controls successfully for unobserved characteristics, then it should generate impact estimates close to zero in such a specification because the follow-up participation occurred after the dependent variable observation. Thus, restricting the sample to only Groups I and II, we estimated both DD and ANCOVA models:

(13) $$Y_1 - Y_0 = P^*\beta + X\gamma + \epsilon$$

(14) $$Y_1 = Y_0\alpha + P^*\delta + X\gamma + \epsilon.$$

The essential thing to note about these equations is that P* occurred after Y_1 was observed. Therefore if a model controls well for selection, we should find P* parameter estimates close to zero.

We also estimated the same models using only the intervention-year comparisons (Groups III and IV). This gave us four sets of P* coefficients: ANCOVA for participants, DD for participants, ANCOVA for comparisons, and DD for comparisons. To simplify the presentation, we then averaged the two ANCOVA estimates, and we averaged the two DD estimates. The results are presented for select outcomes (Exhibit B.15). As the exhibit shows, the DD model does better (i.e., gets results closer to zero) for all the civic attitude outcomes. It does no worse for all but two of the school-administrative outcomes and all but one of the risk-behavior outcomes. The results suggest, once again, that the DD model tends to control for baseline differences better than the ANCOVA model.

One might think we could conduct the same tests looking at the effect of intervention-year participation on the change in scores between post-program and follow-up. That is, one might think we could also compare Group I to Group III and Group II to Group IV. In fact, given our assumptions about how the program works, this test is not as informative as it first seems. We think of the program as having an initial effect that decreases over time. Student behavior is most impacted at the end of the study because the program is fresh in their minds. We believe this impact could diminish over time. Given this, we ***do*** expect intervention-year participation to affect the change in a person's scores between post-program and follow-up. Specifically, relative to comparison scores, participant scores should fall between post-program and follow-up—more so the more initial impacts fade.

While these tests were not the sole reason for selecting the DD model as the basis for much of the study's analysis, they do provide a useful way of examining the degree to which the two models differ in controlling for unobserved differences between the participant and comparison groups at baseline.

SUBGROUP IMPACT ESTIMATION

In addition to the main regressions, we also estimated impacts for subgroups. Let S indicate membership in a subgroup. S equals one if the person is in the subgroup and zero if not. For the post-program DD models, the subgroup impacts were estimated using:

(9) $$Y_1 - Y_0 = S^*P\beta^S + (1 - S)^*P\beta^N + X\gamma + \epsilon;$$

for post-program ANCOVA models:

(10) $$Y_1 = Y_0\alpha + S^*P\delta^S + (1 - S)^*P\delta^N + X\gamma + \epsilon;$$

for follow-up DD

(11) $$Y_2 - Y_0 = S^*P\beta^S + (1 - S)^*P\beta^N + X\gamma + P^*{}_C\xi + \epsilon\text{; and}$$

for follow-up ANCOVA:

(12) $$Y_2 = Y_0\alpha + S^*P\delta^S + (1 - S)^*P\delta^N + X\gamma + P^*{}_C\zeta + \epsilon.$$

In Equations (7) and (9), β^S is the estimated impact for the members of the subgroup; β^N is the estimated impact for the members not in the subgroup. Likewise, for the Analysis of Covariance specifications, δ^S corresponds to the subgroup members and δ^N to the non-members. We report the results of F-tests for the null hypothesis that $\beta^S = \beta^N$ (or $\delta^S = \delta^N$).

SITE EFFECTS, SAMPLE WEIGHTS, AND IMPUTATION

Finally, within all of the statistical models, a number of adjustments were made to account for differences in numbers between the participant and comparison group and for missing data.

First, as is evident from Exhibits B.16 and B.17, the ratio of participant group to comparison group members varies across the study sites. If there are unmeasured site characteristics that affect the outcome of interest, this difference in the distributions of the two groups among sites could result in a correlation between participant status and outcomes that could bias the impact estimates. For example, concentration of the participant group (relative to the comparisons) in sites that, for reasons unrelated to the program, have more positive outcome levels would increase the difference in outcomes between participant and comparison groups and cause the estimated impacts to overstate the true effects of the program.

To avoid this potential bias, two analytic adjustments were incorporated into the estimation of impacts. First, dummy variables for each of the sites were included in the set of regression covariates for all models. This site fixed-effect framework accounts for the variation in program outcomes due to sample members being located in any particular site. Second, in the impact regressions sample observations were weighted so that within each site the ratio of the weighted sum of comparison group members to the weighted sum of program group members was equal across sites, and the weighted sum of all sample members within a site was equal to that site's share of the total number of unweighted sample members in the study sites.[10]

In order to make use of all available post and follow-up information when estimating impacts, missing baseline covariates were assigned the participant or comparison group site-level mean where possible. By imputing missing covariates, the program impact estimates utilize all available outcome data without altering the relationships between outcomes and non-missing covariates. While all covariates were imputed, most had very low instances of missing values. Other than the covariates on risk behaviors and those indicating economic disadvantage, the core covariates had missing value rates averaging about 1 percent—10 individuals out of 1,052. For the risk behaviors, rates of missing values averaged just over 30 percent, and for economic disadvantage 13%, reflecting the fact that not all sites answered the questions. Individuals with missing risk covariates or educational disadvantage status were assigned the means for the participant or comparison group as a whole, without desegregating to the site means. Site means were not used for those imputations because the data was generally missing for the site as a whole rather than scattered individuals within a site. No post or follow-up information was imputed at any time during analysis.

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[10] The same strategy was used for both the post and follow-up analyses. However, because not all people responded to the follow-up survey, and because response rates varied by site, the specific weights used vary somewhat between the two sets of analysis. We estimated some general models using the post sample and trying both post and follow-up weights. The different weights generated no systematic differences in estimated impacts.

Exhibit B.15
IDENTIFICATION TESTS
ANCOVA AVERAGE VERSUS DD AVERAGE

Outcome	ANCOVA	DD	Difference of Absolute Values
Search Institute			
Social welfare subscale	.35	-.05	.30
Community involvement	.42	.13	.29
Total	.69	.08	.61
Cultural diversity	.03	-.01	.02
Greenberger scale			
Communication skills	.09	.09	.00
Work orientation	.08	.06	.02
Service leadership	.11	.10	.01
Volunteered in last 6 months	.08	.01	.07
Average hours volunteered	22	40	-18
Connell			
Educational competence	.04	.05	-.01
School engagement	.06	.05	.01
English grade	.17	.10	.07
Math grade	.10	.03	.07
Social studies grade	.06	.03	.03
Science grade	.05	.02	.03
Overall GPA	.12	.07	.05
Core GPA	.08	.03	.05
Failed one or more courses	.00	.03	-.03
Days absent	.43	.12	.31
Days suspended	.04	.08	-.04
Graduated 4-year college or beyond	.04	.02	.02
Homework: 3 hours per week	.05	.04	.01
Consumed alcohol	-.05	-.06	-.01
Used illegal drugs	-.08	-.08	.00
Arrested	-.03	-.03	.00
Pregnancy	-.03	-.02	.01
Fought, hurt, or used weapon	-.04	-.03	.01

Exhibit B.16
SAMPLE SIZES FOR SURVEY-BASED OUTCOMES POST-PROGRAM SAMPLE BY SCHOOL TYPE, SITE AND PROGRAM STATUS

	Participant Group	Comparison Group	Total
Middle School Sites			
Sierra Ridge Middle School Pollock Pines, CA	15	26	41
Wakulla Middle School Crawfordsville, FL	26	26	52
Futures Academy Buffalo, NY	33	21	54
Nathaniel Rochester Middle School Rochester, NY	13	14	27
East Scranton Intermediate School Scranton, PA	24	16	40
Wanamaker Middle School Philadelphia, PA	33	20	53
Nocona Junior High School Nocona, TX	29	23	52
Total Middle School	173	146	319

Exhibit B.16 *(continued)*
SAMPLE SIZES FOR SURVEY-BASED OUTCOMES
POST-PROGRAM SAMPLE
BY SCHOOL TYPE, SITE AND PROGRAM STATUS

	Participant Group	Comparison Group	Total
High School Sites			
Hillside Continuation High School Upland, CA	23	10	33
Vista High School Bakersfield, CA	28	10	38
Coral Park Senior High School Miami, FL	53	53	106
Marion High School Marion, NC	51	27	78
Taos High School Taos, NM	29	14	43
Scotia-Glenville High School Scotia, NY	63	51	114
Hempstead High School Hempstead, NY	22	21	43
North Olmstead High School North Olmstead, OH	87	45	132
Caprock High School Amarillo, TX	38	39	77
Menasha High School Menasha, WI	41	28	69
Total High School	435	298	733
Total Middle and High School	608	444	1,052

The analysis of all post-program outcomes used only those sample members with both baseline survey data and post-program survey data. For the roster data outcomes, we required both baseline and post-program surveys in addition to post-program roster data. We did not, however, require baseline roster data.

Exhibit B.17
SAMPLE SIZES FOR SURVEY-BASED OUTCOMES
FOLLOW-UP SAMPLE
BY SCHOOL TYPE, SITE AND PROGRAM STATUS

	Participant Group		Comparison Group		
	Group I	**Group II**	**Group III**	**Group IV**	**Total**
Middle School Sites					
Sierra Ridge Middle School Pollock Pines, CA	17	7	18	5	47
Wakulla Middle School Crawfordsville, FL	11	12	14	9	46
Futures Academy Buffalo, NY	6	20	11	2	39
Nathaniel Rochester Middle School Rochester, NY	1	5	7	4	17
East Scranton Intermediate School Scranton, PA	14	10	7	0	31
Wanamaker Middle School Philadelphia, PA	4	18	2	4	28
Nocona Junior High School Nocona, TX	8	19	8	13	48
Total Middle School	61	91	67	37	256

Exhibit B.17 ***(continued)***

SAMPLE SIZES FOR SURVEY-BASED OUTCOMES
FOLLOW-UP SAMPLE
BY SCHOOL TYPE, SITE AND PROGRAM STATUS

	Participant Group		Comparison Group		
	Group I	**Group II**	**Group III**	**Group IV**	**Total**
High School Sites					
Hillside Continuation High School Upland, CA	11	3	6	1	21
Vista High School Bakersfield, CA	9	9	3	2	23
Coral Park Senior High School Miami, FL	20	17	22	22	81
Marion High School Marion, NC	14	23	11	7	55
Taos High School Taos, NM	8	8	6	2	24
Scotia-Glenville High School Scotia, NY	15	45	21	11	92
Hempstead High School Hempstead, NY	2	2	5	2	11
North Olmstead High School North Olmstead, OH	46	20	18	9	93
Caprock High School Amarillo, TX	3	28	21	10	62
Menasha High School Menasha, WI	17	8	18	3	46
Total High School	145	163	131	69	508
Total Middle and High School	206	254	198	106	764

Sample sizes correspond to the follow-up ***survey***. Not all survey respondents answered the question regarding whether they took a service learning course in the follow-up year. For those who did not answer the question, we have imputed their group-membership using mean participation rates by site and treatment status.

In general, the sample sizes for the roster-data outcomes are somewhat different than those for the survey outcomes. The reason is that we included people with follow-up roster data but no follow-up survey data as long as they had post-program survey data. The one exception to this occurred when we explicitly contrasted the experience of Groups I and II. For those contrasts we required follow-up survey data in addition to follow-up roster data. In that instance, we did not rely on imputed group membership.

Exhibit B.18

BASELINE CHARACTERISTICS USED AS COVARIATES IN IMPACT REGRESSIONS

Characteristics	Covariates
Gender	(Male)
	Female
Age	Age at enrollment[a]
Ethnicity	(White, non-Hispanic)
	Black, non-Hispanic
	Hispanic
	Asian, Pacific Islander, American Indian, or Alaskan Native
	(Speaks English at home)
	Doesn't speak English at home
Living environment	(Lives with both parents)
	Doesn't live with both parents
	Spent one or more nights in a shelter or temporary place in past 6 months
	(Didn't spend a night in a shelter or temporary place in past 6 months)
Education history	Educationally disadvantaged[b]
	(Not educationally disadvantaged)
	(Spends time doing homework in school and/or after school in an average week)
	Doesn't spend any time doing homework in school and/or after school in an average week
Economically disadvantaged	Economically disadvantaged[c]
	(Not economically disadvantaged)
Employment	Worked for pay during the last school year
	(Didn't work for pay during the last school year)
Volunteer history	Volunteered or did community service work during the last half of school year last year
	(Didn't volunteer during last half of school year last year)
	Involved in community service or service learning program that was organized by or took place at school before last year
	(Not involved in community service or service learning program at school before last year)

Exhibit B.18 *(continued)*
BASELINE CHARACTERISTICS USED AS COVARIATES IN IMPACT REGRESSIONS

Characteristics	Covariates
Extracurricular activity	Participated in extracurricular activity during the last half of school year last year[d]
	(Didn't participate in extracurricular activity)
At-risk behavior[e]	Had alcoholic drink in last 30 days
	(No alcohol use in last 30 days)
	Used illegal drugs in last 30 days
	(No illegal drug use in last 30 days)
	In group fight, hurt someone, or used weapon to get something in last 6 months
	(Not involved in above in last 6 months)
	Arrested and charged with a crime or parole violation in last 6 months
	(Not arrested or charged with crime or parole violation in last 6 months)
	Ever been or made someone pregnant
	(Never been or made someone pregnant)
Site-specific effects	Dummy variables for respondent location[f]

Each covariate is a dummy variable, except where noted. Variables in parentheses are omitted from the regressions to avoid exact collinearity.

[a] A continuous measure of age at the time the baseline survey was completed.

[b] Equal to 1 if respondent was eligible for Chapter 1 or Special Education projects, or had low academic performance (defined by reading more than two years below grade level or having been retained in grade at least once). Equal to 0 otherwise.

[c] Equal to 1 if respondent economically eligible for free or reduced cost lunch, JTPA programs, food stamps, AFDC, or other income-tested welfare programs.

[d] Measure includes participation in a school or non-school sports team, an after school club, a religious youth group, or a social club or organization outside of school.

[e] Not included when the outcome is a risk-behavior.

[f] Sixteen binary variables, one for each site (omitting North Olmstead to prevent collinearity), equal to 1 if respondent in site, 0 if not.

APPENDIX C

DEFINITIONS OF SCALES AND OTHER OUTCOME MEASURES

This appendix provides information on the various data sources and outcome measures used in the participant impact study and, in particular, defines the outcome measures that were derived from combinations of survey items. Overall, there were more than 20 separate outcome measures used in the study, including both survey items and data from school records. Within that mix, there are four types of grouped outcomes on the baseline and follow-up surveys, including: measures of attitudes, the majority of which are psychometric scales whose component items are designed to be scored and interpreted together; measures of school and community service involvement; measures of involvement in risk behaviors; and a measure of service quality formed from the responses given by participants to program experience questions on the follow-up survey. Each measure is defined and briefly discussed in the sections that follow. The complete formatted surveys are found in Appendix G.

DATA SOURCES: SURVEYS AND SCHOOL RECORD DATA

There were two major data sources for the participant impact analysis in this report.[1] The first was a set of pre- and post-program surveys administered to participants and comparison group members at the beginning and end of the program period and designed to collect a wide range of attitudinal and behavioral information, as well as information on participant characteristics. The second data source was local school record and program data provided by program staff. These were both supplemented by in-person interviews with program participants and other local observers.

Pre- and Post-Program Surveys

The participant and comparison group surveys were designed to collect information on a broad array of participant attitudes, behaviors, and characteristics using a combination of formal attitudinal scales and individual questions. Approximately 20 different scales or topics were addressed in the survey, ranging from a measure of personal and social responsibility to questions about involvement in a range of risk behaviors. The same survey was used for middle and high school-aged youth and for participants and comparison group members. The questions on risk behaviors were not included in the surveys administered at four sites at the request of local school administrators.[2] Exhibit C.1

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[1] The final evaluation report will also include data from a third, follow-up survey of participants and comparison group members.

[2] The four schools were North Olmsted High School, McDowell High School, Sierra Ridge Middle School, and Futures Academy.

provides a summary of the survey items; copies of the pre- and post-program surveys are included in Appendix G.

In developing the surveys, an effort was made to draw on existing attitudinal scales and, in particular, to make use where appropriate of questions/scale that were being used in other studies of service-learning programs (including the Serve-America evaluation). The major sources for survey questions were:

1. Scales measuring attitudes towards personal and social responsibility and cultural diversity, drawn from surveys developed by the Search Institute for use in the evaluation of the National Service Learning Initiative. The Social and Personal Responsibility Scale was originally developed for the Conrad and Hedin experiential education evaluation and modified by the Search Institute.[3]
2. Scales measuring students' sense of educational competence and school engagement developed by Dr. James Connell at the Institute for Research and Reform in Education.[4]
3. Questions measuring students' understanding and commitment to community service leadership, developed by James Seiber for the Community Service Leadership Workshop, Issaquah (Washington) School District.
4. Questions identifying involvement in formal service activities ("helping behaviors") derived from Amato's Personality and Social Network Involvement as Predictors of Helping Behavior in Everyday Life.[5]
5. Scales on communication skills, and work orientation from the Greenberger Psychosocial Maturity Inventory.[6]
6. Questions pertaining to school experience (homework hours, etc.) and risk behaviors derived from the Search Institute's Profiles of Student Life Survey.[7]
7. Questions pertaining to quality of program experience, from the Conrad and Hedin study of experiential education.[8]

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[3] Search Institute, *National Learning Through Service Survey*. See Dan Conrad and Diane Hedin, *Instruments and Scoring Guide of the Experiential Education Evaluation Project* (St. Paul: Center for Youth Development and Research, University of Minnesota, 1981) for the original instrument.

[4] Both scales are part of the *Research/Assessment Package for Schools* developed by the Institute. For the scale on educational competence, also see James P. Connell, "A New Multidimensional Measure of Children's Perceptions of Control," *Child Development*, 56:4 (August, 1985) 1018-41.

[5] Paul R. Amato, "Personality and Social Network Involvement as Predictors of Helping Behavior in Everyday Life," *Social Psychology Quarterly*, 53, 1 (1990), 31-43.

[6] Ellen Greenberger and Lloyd Bond, *User's Manual for the Psychosocial Maturity Inventory*, 1984.

[7] The Profiles of Student Life Survey is the basis for Search Institute's national study of 6th through 12th grade students. See Search Institute, *The Troubled Journey: A Profile of American Youth* (Respecteen, 1990).

[8] Conrad and Hedin, *Instruments*. The participant data on quality of service experience was reported in Chapter Four.

Exhibit C.1
SURVEY DATA

Elements/Domains	Data/Source
Identifying Information	Name, Student ID, Birth Date, School Name, Project Information
Personal Characteristics (baseline only)	Race/Ethnicity, Gender, Grade, Living Arrangements, English Speaking, Prior Work Experience, Reason for Joining.
Program Satisfaction and Experience (post-program only; participants only)	Conrad and Hedin, Program Experience Questions
Civic and Social Attitudes	
Personal and Social Responsibility	Search Institute, National Learning Through Service Survey, Social Welfare and Community Involvement Scales (modification of Conrad and Hedin Personal and Social Responsibility Scale).
Acceptance of Cultural Diversity	Search Institute, National Learning Through Service Survey
Community Service Leadership	Sieber, Service Leadership Scale.
Communication Skills	Communication Subscale, Greenberger Psychosocial Maturity Inventory.
Work Orientation	Work Orientation Subscale, Greenberger Psychosocial Maturity Inventory.
Involvement in Extracurricular Activities	Search Institute, Profiles of Student Life
Educational Aspirations and Expectations	Questions on degree students would like to attain.
Volunteer Behavior	
Involvement in Helping Behaviors, Previous 6 Months	Amato, "Predictors of Helping Behavior" questions.
Estimated Hours of Volunteer Service in Past 6 Months	Questions on hours per week and number of weeks of volunteer activity.
Academic Performance	
Educational Competence	Connell Scale, Children's Perceptions of Control.
School Engagement	Connell, Research/Assessment Package for Schools (RAPS).
School-Related Behavior	Search Institute, Profiles of Student Life (Hours of Homework, Ever Dropped Out, Repeated a Grade)
Risk Behaviors	
Alcohol and drug use, pregnancy, violent behavior, and arrests	Search Institute, Profiles of Student Life.

Each of these scales is discussed in more detail in the sections that follow. Where existing measures were not available for concepts deemed important to the evaluation, however, new survey questions were designed.

School Record and Program Data

In addition to the data collected through the participant and comparison group surveys, the intensive study sites also supplied data collected from school and program records. School record information included socioeconomic data (for example, free or reduced cost lunch status), as well as information on attendance, course grades and course failures, and suspensions (Exhibit C.2). Programs also supplied individual roster data on hours and types of service for program participants. The school record data were collected for the semester prior to program participation (usually the spring semester of the 1994-95 school year) and for the last semester of the 1995-96 school year, which was generally the final semester of program participation.[9]

Exhibit C.2
SCHOOL RECORD AND PROGRAM DATA

Elements/Domains	Data
Student Characteristics	Free Lunch Status, Educationally Disadvantaged
Academic Performance	Attendance, Course Grades, Suspensions, Failed One or More Courses, Grade Point Average.
Program Record Information	Hours and Types of Service, Service-Related Classroom Hours

MEASURES OF ATTITUDES

Several criteria were used to select measures of attitudes for the evaluation. Among the vast number of attitudinal domains and psychometric scales available, specific measures were adopted that:

- Figured most prominently in the stated goals of community service programs;
- Could likely be affected by the program within the limited time period covered by the evaluation; and
- Could be measured on self-administered survey forms within the resource constraints of the evaluation.

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[9] Because of the schedule for the evaluation reports, it was not possible to collect true post-program school record information—that is, data from the school year following program participation (1994-95).

To this end, the evaluation team consulted with Corporation program staff at the outset of the evaluation as to the intended effects of the programs and the relationship of this evaluation to the prior study of Serve-America. We then undertook a review of the literature on education, youth development, and service-learning and talked with other researchers to identify candidate measures. In reviewing both the Serve-America and new measures for this study, the research team worked particularly closely with Dr. Dale Blyth at the Search Institute and Dr. James Connell at the Institute for Research and Reform in Education.

Ultimately, six existing attitudinal scales were adopted from four different sources. These are described below.

Educational Competence Control (Connell Scale)

Previous research has suggested that an important contributor to success in school is an individual's expectation about whether he or she has any direct control over academic outcomes. Dr. James Connell of the Institute for Research and Reform in Education has developed a scale measuring students' perceived control in school based on results of an earlier study of elementary school students that examined the concept of perceived control and its relation to school achievement.[10] The scale is part of a broader set of educational assessment questions, the *Research/Assessment Package for Schools (RAPS)*. Questions are designed to assess students' beliefs pertaining to three constructs: 1) strategy beliefs—expectations about what is required to do well in school; 2) capacity beliefs—do they believe they have what it takes to execute the strategies; and 3) control beliefs—expectations about whether students can influence academic outcomes. The scale consists of 20 items:

> For each of the following statements, please indicate whether you strongly agree, agree a little, disagree a little, or strongly disagree.

1. I can do well in school if I want to.
2. I can't work very hard in school.
3. The best way for me to get good grades is to get my teacher to like me.
4. I'm pretty smart in school.
5. I don't know what it takes to get good grades in school.
6. I'm pretty lucky at getting good grades.
7. If I don't do well on my schoolwork, it's because I didn't try hard enough.
8. I can't get my teachers to like me.
9. I can't do well in school
10. Trying hard is the best way for me to do well in school.
11. I don't know how to keep myself from getting bad grades.
12. I won't do well in school if the teachers don't like me.
13. I have to be smart to get good grades.
14. I am unlucky in school.
15. I can work really hard in school.
16. I have to be lucky to do well in school.

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[10] Skinner, Ellen A., James G. Wellborn, and James P. Connell, "What It Takes to Do Well in School and Whether I've Got It: A Process Model of Perceived Control and Children's Engagement and Achievement in School," *Journal of Educational Psychology*, 1990, Vol 82, No. 1, pp. 22-32.

17. If I'm not smart, I won't get good grades.
18. If I'm unlucky, I won't do well in school.
19. I can get teachers to like me.
20. I'm not very smart in school.

The questions are combined into a total score by scoring the response to each question on a four-point scale and computing average scores for items that promote perceived control and those that undermine perceived control, and subtracting the latter from the former, adjusting for reverse scored items.[11] A higher score indicates stronger engagement in school and perceived control.

Engagement in School (Connell Scale)

These items are part of the *Research/Assessment Package for Schools* and have been used extensively in studies of middle and high school students by the Institute for Research and Reform in Education to measure engagement and achievement motivation in school. The items appear as follows:

> For each of the following statements, please indicate whether it is very true for you, sort of true for you, not very true for you, or not true at all for you.
>
> 1. When I am in school, I feel happy.
> 2. I work very hard on my schoolwork.
> 3. When I am in class, I try very hard.
> 4. I don't try very hard in school.
> 5. I don't work very hard in school.
> 6. When I am in class, I just act as if I'm working.
> 7. I pay attention in class.
> 8. I try to learn as much as I can about my school subjects.
> 9. How important is it to you to do the best you can in school (very important, sort of important, not very important, not important at all).

Individual scores for the scale are calculated by taking the mean score, where an item score ranges from 1 (Not True at All) to 4 (Very True), reverse scoring some items.

Personal and Social Responsibility (Search Institute Scale)

This scale was devised by Search Institute for the evaluation of the National Service Learning Initiative. It is based in part on Conrad and Hedin's Personal and Social Responsibility Scale developed for the Experiential Education Evaluation Project.[12] These are among the few known scales that directly address attitudes toward social responsibility.

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[11] The detailed scoring formula is available from Abt Associates, Inc.

[12] Conrad, Dan and Diane Hedin, *Executive Summary of the Final Report of the Experiential Education Project.* Center for Youth Development and Research, University of Minnesota, 1985.

The measure is composed of an attitude subscale and an intent subscale. We adopt only the former, since the follow-up period in our study is short and it has been hypothesized that a change in attitude is likely to precede changes in intention. There are three domains within the attitude subscale corresponding to different types of social involvement, each with a separate score: social welfare, environmental, and community involvement. Only the social welfare and community involvement subscales were used in this study.

The new scale has been developed with the rationale that youth who are involved in service activities will be more likely to understand and endorse the belief that each individual shares responsibility for the welfare of others, the environment, and the community in general.

The Personal and Social Responsibility Scale used in this study consists of 10 statements with two sentence endings numbered 1 and 4. Respondents were asked to indicate how they would finish the sentence by circling a number between 1 and 4 (we show only the sentence endings below; see Appendix F for the actual question format):

1. Taking care of people who are having difficulty caring for themselves. . .
   - is everyone's responsibility, including mine
   - is not my responsibility.
2. Getting actively involved in political or social issues . . .
   - is not that important to community life
   - is an important way to improve the community.
3. Helping others without being paid . . .
   - is not something people should feel they have to do
   - is something everyone should feel they have to do.
4. Being concerned about state and local issues is . . .
   - an important responsibility for everybody
   - not something in which most people should be involved.
5. Helping a person in need . . .
   - is something people should do only for friends or relatives
   - is something people should do for anyone, even if they don't know them.
6. Doing something about school problems . . .
   - is a job for only a few people who want to be involved
   - is something every person should be involved in.
7. Helping other people . . .
   - is something I feel a strong need to do
   - is something I prefer to let others do.
8. Being actively involved in community issues . . .
   - is something I feel personally responsible for
   - is something I don't feel personally responsible for.
9. Helping other people . . .
   - is something I feel personally responsible for
   - is something I don't feel personally responsible for.
10. Working to improve the community . . .
    - is an important job for everyone, even beginners
    - is only the job of people who know how to do it.

We calculated a score for each subscale and a total score for the scale as a whole. An individual's score is a sum of the individual item responses, with adjustments made for reverse scoring. A high score indicates a belief that individuals have a responsibility to act on behalf of the larger social good in terms of helping others, protecting the environment, and addressing community problems in general.

Acceptance of Cultural Diversity (Search Institute)

One of the goals for community service is to increase students' understanding and acceptance of diversity in the community through their contacts with service recipients and their work in institutions outside of the school. The scale used to measure this impact was developed by the Search Institute for its evaluation of the National Service Learning Initiative. The scale consists of 11 items, as follows:

> For each of the following statements, please indicate whether it is very true for you, sort of true for you, not very true for you, or not true at all for you.
>
> 1. It bothers me if a teacher or a classmate is different from me.
> 2. I prefer to spend time with different types of people, not just people like me.
> 3. I would rather not live near people of different races or ethnic groups.
> 4. I dislike being with handicapped or physically disabled people.
> 5. I can learn a lot from people with backgrounds and experiences that are different from mine.
> 6. People with disabilities can hold jobs and contribute to society.
> 7. I would have no problem working with a person whose race or ethnicity is different from mine.
> 8. I dislike being with people whose physical abilities are different than mine.
> 9. It would probably be better if most old people kept to themselves.
> 10. People can learn a lot from elderly people.
> 11. I would not make friends with a person who had very different manners, clothes, or looks from most of my other friends.

Individual scores for the scale are calculated by taking the mean score, where an item score ranges from 1 (Not True at All) to 4 (Very True), reverse scoring some items. A higher score indicates greater acceptance of diversity.

Community Service Leadership (Sieber Scale)

The community service leadership was developed by James Sieber of the Issaquah (Washington) School District as part of a Community Service Leadership Workshop. It is designed to measure a student's self-assessed understanding and commitment to leadership in community service. The scale is composed of 10 questions addressing different components of leadership, such as knowledge of community issues, ability to design a project, confidence in leading a group, and commitment to action.

For each of the following statements, please indicate whether it is very true for you, sort of true for you, not very true for you, or not true at all for you.

1. I am aware of needs in my community that I can do something about.
2. I believe that I personally can make a difference in my community.
3. I believe students my age have enough influence to be able to impact community decisions.
4. I know how to design and implement a community service project.
5. I know what resources are available to help me with a community project.
6. I feel that most adults are supportive of students' efforts to work on community problems.
7. I am confident in expressing my opinions in front of a group.
8. I know what is expected of a leader of a group project.
9. I am committed to community service both now and later in life.
10. I enjoy doing something that will benefit others in the community.

Individual scores for the scale are calculated by taking the mean score, where an item score ranges from 1 (Not True at All) to 4 (Very True).

Psychosocial Maturity Inventory (Greenberger Scale)

The Psychosocial Maturity Inventory, developed by Dr. Ellen Greenberger, is a questionnaire composed of nine different subscales intended to measure attributes of mature functioning in society. Since its development in 1972, the Inventory has been used to assess the level of social and psychological maturity of a vast number of students of varying ages. For example, it has been used in a study of over 40,000 students in grades 7 through 11 in South Carolina and was administered to approximately 2,000 11th graders in Pennsylvania as part of a study on adolescent socialization.[13]

We used the 8th grade version of two subscales: communication skills and work orientation. Since we did not administer all elements of the Inventory, only subscale scores were available.

The two subscales consist of a total of 21 questions:

For each of the following statements, please indicate whether it is very true for you, sort of true for you, not very true for you, or not true at all for you.

Communication

1. It is hard to talk to someone you don't know.
2. In a discussion, I often find it hard to understand what people are saying.
3. When a teacher gives direction, I usually understand him or her the first time.
4. I do not mix well with other people.
5. People find it hard to figure me out from what I say.
6. I often forget to listen to what others are saying.
7. It is hard for me to speak my thoughts clearly.
8. It is not hard to give a talk in front of other people.
9. I am not good at describing things in writing.
10. I am not really accepted and liked.

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[13] Greenberger, Ellen, "Education and the Acquisition of Psychosocial Maturity." In D.C. McClelland (Ed.), *The Development of Social Maturity*. New York: Irvington, 1982.

Work Orientation

11. I often don't finish work I start.
12. No one should expect you to do work that you don't like.
13. I get upset if I am not immediately successful in learning something new.
14. I often leave my homework unfinished if there are a lot of good TV shows on that evening.
15. I seldom get behind in my work
16. I often go from one thing to another before finishing any one of them.
17. I often don't finish work I start.
18. Hard work is never fun.
19. It's very important to me to do my work well.
20. Very often I forget work that I am supposed to do.

Individual scores for the subscales are calculated by taking the mean score of the items in each subscale, where an item score ranges from 1 (disagree strongly with statement) to 4 (agree strongly with statement), reverse scoring some items.[14] An individual subscale score is recorded only if a majority of subscale items have been answered (this affected only three cases in the sample). A higher score indicates a higher level of perceived communications skills and a stronger commitment to work.

MEASURES OF SCHOOL AND COMMUNITY SERVICE INVOLVEMENT

There are two major measures that attempt to assess the extent of involvement in the community: a measure of involvement in formal helping behaviors and an estimate of hours spent performing volunteer work.

Engaged in Helping Behavior in the Last Six Months

We asked study participants 8 questions about their involvement in specific types of service (formal helping behaviors) as one means of measuring involvement in service activities before and after the program. The specific questions are based on items devised by Dr. Paul Amato for a study of helping behavior, with some additional modifications based on the evaluation team's experience with service-learning.[15] The items include:

During the second half of last school year/this school year, did you do any of the following things?

1. Volunteer for a community organization that does socially useful work, such as a day care center or homeless shelter?
2. Serve as a volunteer counselor, mentor, or tutor?

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[14] For detailed scoring directions, see Greenberger, Ellen and Lloyd Bond, *User's Manual for the Psychosocial Maturity Inventory*, 1984.

[15] See Amato, Paul R. "Personality and Social NetWork Involvement as Predictors of Helping Behavior in Everyday Life." *Social Psychology Quarterly*, Vol. 53, No. 1, 1990, pp. 31-43.

3. Write a letter to a newspaper, elected official, or government agency about an issue that you thought was important to the community?
4. Get involved in a recycling project?
5. Take part in a community project such as cleaning up a neighborhood park or working in a food bank?
6. Visit or help take care of someone in a nursing home or hospital?
7. Help to organize a project to raise money or collect food or clothing for people in need?
8. Volunteer in a public safety project, such as a neighborhood crime watch or a drug prevention program?

The outcome used in this study was whether or not the respondent had been engaged in any of the listed helping behaviors at post-program.

Hours Doing Volunteer Work over Last Six Months

This outcome is derived from responses to the following survey question:

During the last half of the school year (January to June) last year/this year, how often did you do some volunteer or community service work?

1. I volunteered _____ days a week.
2. On average, I volunteered _____ hours each day.
3. I did this for _____ of the 26 weeks between January and June.

Hours doing volunteer work over the last six months were determined by multiplying days per week by hours per day by number of weeks.

MEASURES OF INVOLVEMENT IN RISK BEHAVIOR

A series of questions, based on the Search Institute's Profiles of Student Life, were asked to assess self-reported involvement in risk behaviors. The questions were as follows:

The questions below ask about several kinds of social behaviors. Please answer them as honestly as you can. Remember, no one at your school will see your answers to these questions. If there are any questions that you do not want to answer, you may leave them blank.

1. In the past 30 days, have you had anything to drink, such as a glass of wine, a beer, or a mixed drink?
2. In the past 30 days, have you ever had five or more alcoholic drinks in a row?
3. In the past 30 days, have you used marijuana or another illegal drug?
4. Have you ever been pregnant, or made someone pregnant?
5. During the last 6 months, have you ever ...
    a. Gotten into a fight where a group of your friends was against another group?
    b. Hurt someone badly enough to need bandages or a doctor?
    c. Used a knife or a gun or some other weapon (like a club) to get something from a person?
    d. Been arrested and charged with a crime or parole violation?

We estimated impacts on alcohol use (yes on either question 1 or 2), drug use (question 2), pregnancy (question 4), and arrests (question 5d). We also created a measure of involvement in delinquent behavior that was positive if students answered yes to any one of questions 5a,b, or c.

MEASURE OF PROGRAM EXPERIENCE

On the follow-up survey, program participants were asked a series of questions about their program experience. Among these were a list of features of a community service experience taken largely from Conrad and Hedin's Community Service Checklist.[16] The specific features are those expected to be present in a successful program. Indeed, Conrad and Hedin found that characteristics of an individual's program experience were strong predictors of pre-post gains observed during the Experiential Education Evaluation Project.The measure is comprised of 13 items:

> The following list describes some features of a community service experience. Please describe your community service experience by answering whether it was practically never, once in a great while, sometimes, fairly often, or very often.

1. Had real responsibilities.
2. Had challenging tasks.
3. Made important decisions.
4. Discussed my experiences with teachers.
5. Did things myself instead of observing.
6. Had freedom to develop and use my own ideas.
7. Discussed my experiences with my family and friends.
8. Adults at the site took a personal interest in me.
9. Had freedom to explore my own interests.
10. Had a variety of tasks to do at the site.
11. Needed more help from my supervisor.
12. Adults criticized me or my work.
13. Felt I made a contribution.

Individual scores were calculated by averaging the item scores, where an item received 1 point if the response was "practically never," up to 5 points for a response of "very often," with some items (11 and 12) reverse scored.

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[16] Conrad, Dan and Diane Hedin, *Instruments and Scoring Guide of the Experiential Education Evaluation Project*. Center for Youth Development and Research, University of Minnesota, 1985.

APPENDIX D

POST-PROGRAM PARTICIPANT IMPACT TABLES

Exhibit D.1
POST-PROGRAM PARTICIPANT IMPACTS
ALL PARTICIPANTS
DIFFERENCE-IN-DIFFERENCE MODEL
(N=1052)

Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Impact as % of Control Mean (4)	R^2 (5)
Civic/Social Attitudes and Behavior						
Personal and social responsibility (Search Institute scale: range 5-25):						
Social welfare subscale	1047	17.80	0.24	0.22	1.37	0.05
Community involvement	1047	17.84	0.28	0.24	1.59	0.05
Search - Total Personal/Social Responsibility (range 10-50)	1047	35.64	0.53	0.39	1.48	0.05
Cultural Diversity (range 1-4)	1050	3.40	0.05 **	0.03	1.55	0.06
Psychosocial maturity (Greenberger scale: range 1-4):						
Communication Skills subscale	1048	2.87	-0.03	0.03	-1.01	0.05
Work Orientation subscale	1048	2.74	-0.01	0.03	-0.46	0.09
Service Leadership (Sieber scale: range 1-4)	1050	2.76	0.13 ***	0.03	4.72	0.10
Total Civic Attitudes	1045	100.55	2.35 ***	0.69	2.33	0.07
Volunteer Behavior						
Volunteered for a community organization or got involved in other community service in last 6 months	1028	0.75	0.14 ***	0.03	19.05	0.10
Average hours doing volunteer work or community service in last 6 months	925	32.26	41.23 ***	10.42	127.81	0.09

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[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

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Exhibit D.1 (continued)
POST-PROGRAM PARTICIPANT IMPACTS
ALL PARTICIPANTS
DIFFERENCE-IN-DIFFERENCE MODEL
(N=1052)

Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Impact as % of Control Mean (4)	R^2 (5)
Educational Impacts (Connell scale: range 1-4):						
Educational competence	978	3.08	-0.00	0.02	-0.08	0.08
School engagement	1049	3.21	0.11 ***	0.03	3.41	0.08
English grade	852	2.31	-0.08	0.08	-3.28	0.13
Math grade	761	2.26	0.22 ***	0.08	9.65	0.17
Social studies grade	829	2.39	0.09	0.08	3.74	0.12
Science grade	735	2.41	0.15 *	0.08	6.42	0.18
Overall/School GPA	781	2.54	0.05	0.05	2.14	0.25
Core GPA[b]	905	2.36	0.09 *	0.05	3.69	0.19
Fail 1 or more courses	1011	0.16	-0.03	0.03	-15.78	0.11
Days absent[c]	878	8.05	0.67	0.53	8.27	0.35
Suspended last year[d]	519	0.12	-0.02	0.03	-14.50	0.18
Graduate 4-year college or beyond	1031	0.78	0.02	0.02	2.15	0.05
Homework: 3 hours or more per week	1034	0.64	-0.01	0.03	-1.10	0.05
Involvement with Risk Behavior						
Consumed any alcohol in last 30 days	722	0.39	0.00	0.04	0.70	0.04
Used illegal drugs in last 30 days	700	0.17	-0.01	0.03	-7.59	0.06
Arrested in last 6 months	724	0.12	-0.01	0.03	-5.07	0.04
Ever pregnant or made someone pregnant	721	0.05	-0.04 *	0.02	-65.27	0.02
Fought, hurt, or used weapon in last 6 months	726	0.34	-0.03	0.04	-7.41	0.05
Total number of risk behaviors	689	1.08	-0.10	0.09	-8.92	0.05

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[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

[b] Core GPA calculated as the average of English, Math, Social Studies, and Science grades.

[c] Three (3) programs were excluded from the analysis of days absent due to incomplete reporting.

[d] Seven (7) programs were excluded from the analysis of any suspensions due to incomplete reporting.

Exhibit D.2
POST-PROGRAM PARTICIPANT IMPACTS
HIGH SCHOOL PARTICIPANTS
DIFFERENCE-IN-DIFFERENCE MODEL
(N=733)

Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Impact as % of Control Mean (4)	R^2 (5)
Civic/Social Attitudes and Behavior						
Personal and social responsibility (Search Institute scale: range 5-25):						
Social welfare subscale	729	18.05	0.20	0.25	1.12	0.05
Community involvement	729	17.94	0.20	0.28	1.11	0.04
Search - Total Personal/Social Responsibility (range 10-50)	729	35.98	0.40	0.45	1.12	0.04
Cultural Diversity (range 1-4)	731	3.45	0.06 *	0.03	1.68	0.06
Psychosocial maturity (Greenberger scale: range 1-4):						
Communication Skills subscale	729	2.92	-0.02	0.03	-0.74	0.05
Work Orientation subscale	729	2.78	0.02	0.03	0.77	0.09
Service Leadership (Sieber scale: range 1-4)	731	2.74	0.14 ***	0.03	5.22	0.11
Total Civic Attitudes	727	101.31	2.40 ***	0.83	2.37	0.06
Volunteer Behavior						
Volunteered for a community organization or got involved in other community service in last 6 months	716	0.69	0.12 ***	0.03	17.82	0.11
Average hours doing volunteer work or community service in last 6 months	648	25.07	52.95 ***	10.27	211.19	0.16

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[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

Exhibit D.2 (continued)
POST-PROGRAM PARTICIPANT IMPACTS
HIGH SCHOOL PARTICIPANTS
DIFFERENCE-IN-DIFFERENCE MODEL
(N=733)

Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Impact as % of Control Mean (4)	R^2 (5)
Educational Impacts (Connell scale: range 1-4):						
Educational competence	681	3.11	0.01	0.02	0.44	0.07
School engagement	730	3.20	0.10 ***	0.03	3.21	0.11
English grade	619	2.43	-0.07	0.09	-2.99	0.14
Math grade	528	2.41	0.25 **	0.10	10.21	0.22
Social studies grade	597	2.55	0.03	0.09	1.24	0.13
Science grade	502	2.57	0.19 *	0.10	7.57	0.23
Overall/School GPA	604	2.67	0.08	0.05	3.04	0.28
Core GPA[b]	672	2.49	0.08	0.06	3.37	0.23
Fail 1 or more courses	733	0.11	-0.07 **	0.03	-65.37	0.10
Days absent[c]	674	7.77	0.84	0.54	10.87	0.37
Suspended last year[d]	377	0.15	-0.01	0.04	-9.50	0.22
Graduate 4-year college or beyond	719	0.80	0.02	0.03	2.72	0.06
Homework: 3 hours or more per week	720	0.69	-0.01	0.04	-0.93	0.05
Involvement with Risk Behavior						
Consumed any alcohol in last 30 days	507	0.45	0.01	0.05	1.17	0.05
Used illegal drugs in last 30 days	491	0.20	-0.02	0.04	-9.30	0.07
Arrested in last 6 months	506	0.14	0.03	0.03	21.29	0.04
Ever pregnant or made someone pregnant	504	0.06	-0.03	0.03	-46.27	0.02
Fought, hurt, or used weapon in last 6 months	509	0.32	-0.03	0.04	-8.63	0.07
Total number of risk behaviors	484	1.20	-0.07	0.11	-5.84	0.06

---

[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

[b] Core GPA calculated as the average of English, Math, Social Studies, and Science grades.

[c] Three (3) programs were excluded from the analysis of days absent due to incomplete reporting.

[d] Seven (7) programs were excluded from the analysis of any suspensions due to incomplete reporting.

Exhibit D.3
POST-PROGRAM PARTICIPANT IMPACTS
MIDDLE SCHOOL PARTICIPANTS
DIFFERENCE-IN-DIFFERENCE MODEL
(N=319)

Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Impact as % of Control Mean (4)	R^2 (5)
Civic/Social Attitudes and Behavior						
Personal and social responsibility (Search Institute scale: range 5-25):						
Social welfare subscale	318	17.22	0.30	0.49	1.75	0.07
Community involvement	318	17.62	0.65	0.46	3.68	0.13
Search - Total Personal/Social Responsibility (range 10-50)	318	34.84	0.95	0.79	2.73	0.10
Cultural Diversity (range 1-4)	319	3.27	0.03	0.05	1.02	0.11
Psychosocial maturity (Greenberger scale: range 1-4):						
Communication Skills subscale	319	2.74	-0.01	0.05	-0.27	0.11
Work Orientation subscale	319	2.65	-0.08	0.05	-3.10	0.16
Service Leadership (Sieber scale: range 1-4)	319	2.80	0.07	0.06	2.40	0.12
Total Civic Attitudes	318	98.82	1.96	1.33	1.98	0.11
Volunteer Behavior						
Volunteered for a community organization or got involved in other community service in last 6 months	312	0.88	0.18 ***	0.05	20.34	0.12
Average hours doing volunteer work or community service in last 6 months	277	50.52	18.48	26.20	36.59	0.09

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[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

Exhibit D.3 (continued)
POST-PROGRAM PARTICIPANT IMPACTS
MIDDLE SCHOOL PARTICIPANTS
DIFFERENCE-IN-DIFFERENCE MODEL
(N=319)

Characteristic	N	Control Group Mean (1)	Impact[a] (2)		Standard Error of Impact (3)	Impact as % of Control Mean (4)	R^2 (5)
Educational Impacts (Connell scale: range 1-4):							
Educational competence	297	3.01	-0.02		0.05	-0.54	0.16
School engagement	319	3.23	0.08		0.05	2.44	0.13
English grade	233	1.95	-0.02		0.16	-1.12	0.19
Math grade	233	1.84	0.22		0.16	12.18	0.13
Social studies grade	232	1.93	0.35	**	0.17	18.32	0.18
Science grade	233	2.04	0.13		0.16	6.44	0.15
Overall/School GPA	177	2.02	-0.01		0.14	-0.49	0.26
Core GPA[b]	233	1.94	0.17		0.12	8.73	0.17
Fail 1 or more courses	278	0.30	0.06		0.06	20.87	0.22
Days absent[c]	204	9.04	-0.25		1.47	-2.74	0.24
Suspended last year[d]	142	0.04	0.07		0.05	174.69	0.25
Graduate 4-year college or beyond	312	0.73	-0.00		0.05	-0.00	0.07
Homework: 3 hours or more per week	314	0.53	-0.02		0.07	-2.84	0.11
Involvement with Risk Behavior							
Consumed any alcohol in last 30 days	215	0.23	0.03		0.07	11.31	0.07
Used illegal drugs in last 30 days	209	0.09	-0.00		0.05	-1.01	0.16
Arrested in last 6 months	218	0.06	-0.09	**	0.05	-142.5	0.18
Ever pregnant or made someone pregnant	217	0.03	-0.06	*	0.03	-171.1	0.12
Fought, hurt, or used weapon in last 6 months	217	0.40	-0.01		0.07	-3.45	0.09
Total number of risk behaviors	205	0.77	-0.13		0.14	-16.76	0.09

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[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

[b] Core GPA calculated as the average of English, Math, Social Studies, and Science grades.

[c] Three (3) programs were excluded from the analysis of days absent due to incomplete reporting.

[d] Seven (7) programs were excluded from the analysis of any suspensions due to incomplete reporting.

Exhibit D.4
POST-PROGRAM PARTICIPANT IMPACTS
ALL PARTICIPANTS
ANALYSIS OF COVARIANCE MODEL
(N=1052)

Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Impact as % of Control Mean (4)	R^2 (5)
Civic/Social Attitudes and Behavior						
Personal and social responsibility (Search Institute scale: range 5-25):						
Social welfare subscale	1047	17.80	0.64 ***	0.19	3.61	0.37
Community involvement	1047	17.84	0.89 ***	0.20	5.00	0.38
Search - Total Personal/Social Responsibility (range 10-50)	1047	35.64	1.43 ***	0.34	4.00	0.44
Cultural Diversity (range 1-4)	1050	3.40	0.08 ***	0.02	2.41	0.47
Psychosocial maturity (Greenberger scale: range 1-4):						
Communication Skills subscale	1048	2.87	-0.01	0.02	-0.25	0.46
Work Orientation subscale	1048	2.74	0.03	0.02	1.18	0.44
Service Leadership (Sieber scale: range 1-4)	1050	2.76	0.23 ***	0.03	8.37	0.47
Total Civic Attitudes	1045	100.55	4.18 ***	0.64	4.16	0.57
Volunteer Behavior						
Volunteered for a community organization or got involved in other community service in last 6 months	1028	0.75	0.20 ***	0.02	26.34	0.26
Average hours doing volunteer work or community service in last 6 months	925	32.26	58.84 ***	7.40	182.42	0.17

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[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

Exhibit D.4 (continued)
POST-PROGRAM PARTICIPANT IMPACTS
ALL PARTICIPANTS
ANALYSIS OF COVARIANCE MODEL
(N=1052)

Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Impact as % of Control Mean (4)	R^2 (5)
Educational Impacts (Connell scale: range 1-4):						
Educational competence	978	3.08	0.03 *	0.02	1.14	0.43
School engagement	1049	3.21	0.12 ***	0.02	3.80	0.48
English grade	852	2.31	0.07	0.06	2.92	0.42
Math grade	761	2.26	0.25 ***	0.07	11.04	0.45
Social studies grade	829	2.39	0.18 ***	0.06	7.47	0.45
Science grade	735	2.41	0.17 **	0.07	7.06	0.40
Overall/School GPA	781	2.54	0.09 *	0.05	3.44	0.58
Core GPA[b]	905	2.36	0.12 ***	0.05	5.15	0.57
Fail 1 or more courses	1011	0.16	-0.04 *	0.02	-23.15	0.26
Days absent[c]	878	8.05	-0.26	0.44	-3.23	0.51
Suspended last year[d]	519	0.12	-0.01	0.02	-7.91	0.18
Graduate 4-year college or beyond	1031	0.78	0.05 **	0.02	6.74	0.38
Homework: 3 hours or more per week	1034	0.64	0.03	0.03	4.15	0.23
Involvement with Risk Behavior						
Consumed any alcohol in last 30 days	722	0.39	-0.02	0.03	-4.52	0.26
Used illegal drugs in last 30 days	700	0.17	-0.01	0.02	-8.57	0.29
Arrested in last 6 months	724	0.12	-0.00	0.02	-1.20	0.24
Ever pregnant or made someone pregnant	721	0.05	-0.03 *	0.02	-53.26	0.25
Fought, hurt, or used weapon in last 6 months	726	0.34	-0.05	0.03	-13.69	0.28
Total number of risk behaviors	689	1.08	-0.12	0.07	-10.72	0.39

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[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

[b] Core GPA calculated as the average of English, Math, Social Studies, and Science grades.

[c] Three (3) programs were excluded from the analysis of days absent due to incomplete reporting.

[d] Seven (7) programs were excluded from the analysis of any suspensions due to incomplete reporting.

Exhibit D.5
POST-PROGRAM PARTICIPANT IMPACTS
HIGH SCHOOL PARTICIPANTS
ANALYSIS OF COVARIANCE MODEL
(N=733)

Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Impact as % of Control Mean (4)	R^2 (5)
Civic/Social Attitudes and Behavior						
Personal and social responsibility (Search Institute scale: range 5-25):						
Social welfare subscale	729	18.05	0.55 **	0.22	3.05	0.41
Community involvement	729	17.94	0.89 ***	0.24	4.97	0.37
Search - Total Personal/Social Responsibility (range 10-50)	729	35.98	1.30 ***	0.40	3.62	0.45
Cultural Diversity (range 1-4)	731	3.45	0.08 ***	0.03	2.34	0.44
Psychosocial maturity (Greenberger scale: range 1-4):						
Communication Skills subscale	729	2.92	-0.00	0.03	-0.01	0.46
Work Orientation subscale	729	2.78	0.06 **	0.03	2.06	0.44
Service Leadership (Sieber scale: range 1-4)	731	2.74	0.26 ***	0.03	9.45	0.48
Total Civic Attitudes	727	100.31	4.30 ***	0.77	4.24	0.56
Volunteer Behavior						
Volunteered for a community organization or got involved in other community service in last 6 months	716	0.69	0.21 ***	0.02	30.08	0.31
Average hours doing volunteer work or community service in last 6 months	648	25.07	72.71 ***	8.13	289.99	0.22

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[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

Exhibit D.5 (continued)
POST-PROGRAM PARTICIPANT IMPACTS
HIGH SCHOOL PARTICIPANTS
ANALYSIS OF COVARIANCE MODEL
(N=733)

Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Impact as % of Control Mean (4)	R^2 (5)
Educational Impacts (Connell scale: range 1-4):						
Educational competence	681	3.11	0.04 *	0.02	1.25	0.46
School engagement	730	3.20	0.11 ***	0.03	3.32	0.50
English grade	619	2.43	0.02	0.07	0.70	0.41
Math grade	528	2.41	0.22 **	0.09	9.06	0.41
Social studies grade	597	2.55	0.08	0.07	3.00	0.40
Science grade	502	2.57	0.14	0.09	5.32	0.35
Overall/School GPA	604	2.67	0.07	0.05	2.79	0.60
Core GPA[b]	672	2.49	0.08	0.05	3.05	0.54
Fail 1 or more courses	733	0.11	-0.04 *	0.02	-38.43	0.21
Days absent[c]	674	7.77	-0.09	0.42	-1.21	0.45
Suspended last year[d]	377	0.15	0.01	0.03	4.41	0.22
Graduate 4-year college or beyond	719	0.80	0.05 *	0.02	5.97	0.43
Homework: 3 hours or more per week	720	0.69	0.00	0.03	0.50	0.25
Involvement with Risk Behavior						
Consumed any alcohol in last 30 days	507	0.45	-0.02	0.04	-4.70	0.24
Used illegal drugs in last 30 days	491	0.20	-0.02	0.03	-9.16	0.30
Arrested in last 6 months	506	0.14	-0.00	0.02	-0.51	0.26
Ever pregnant or made someone pregnant	504	0.06	-0.03	0.02	-49.33	0.26
Fought, hurt, or used weapon in last 6 months	509	0.32	-0.06 *	0.03	-18.61	0.29
Total number of risk behaviors	484	1.20	-0.15	0.09	-12.18	0.38

[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

[b] Core GPA calculated as the average of English, Math, Social Studies, and Science grades.

[c] Three (3) programs were excluded from the analysis of days absent due to incomplete reporting.

[d] Seven (7) programs were excluded from the analysis of any suspensions due to incomplete reporting.

Exhibit D.6
POST-PROGRAM PARTICIPANT IMPACTS
MIDDLE SCHOOL PARTICIPANTS
ANALYSIS OF COVARIANCE MODEL
(N=319)

Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Impact as % of Control Mean (4)	R^2 (5)
Civic/Social Attitudes and Behavior						
Personal and social responsibility (Search Institute scale: range 5-25):						
Social welfare subscale	318	17.22	0.92 **	0.40	5.37	0.30
Community involvement	318	17.62	1.14 ***	0.39	6.49	0.40
Search - Total Personal/Social Responsibility (range 10-50)	318	34.84	1.98 ***	0.68	5.69	0.41
Cultural Diversity (range 1-4)	319	3.27	0.08 *	0.04	2.43	0.53
Psychosocial maturity (Greenberger scale: range 1-4):						
Communication Skills subscale	319	2.74	0.01	0.05	0.22	0.46
Work Orientation subscale	319	2.65	-0.01	0.05	-0.51	0.44
Service Leadership (Sieber scale: range 1-4)	319	2.80	0.14 ***	0.05	5.10	0.50
Total Civic Attitudes	318	98.82	3.95 ***	1.22	3.99	0.57
Volunteer Behavior						
Volunteered for a community organization or got involved in other community service in last 6 months	312	0.88	0.17 ***	0.04	19.05	0.19
Average hours doing volunteer work or community service in last 6 months	277	50.52	29.48 *	16.53	58.35	0.20

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[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

Exhibit D.6 (continued)
POST-PROGRAM PARTICIPANT IMPACTS
MIDDLE SCHOOL PARTICIPANTS
ANALYSIS OF COVARIANCE MODEL
(N=319)

Characteristic	N	Control Group Mean (1)	Impact[a] (2)		Standard Error of Impact (3)	Impact as % of Control Mean (4)	R^2 (5)
Educational Impacts (Connell scale: range 1-4):							
Educational competence	297	3.01	0.05		0.04	1.52	0.44
School engagement	319	3.23	0.12	**	0.05	3.60	0.47
English grade	233	1.95	0.24		0.15	12.11	0.47
Math grade	233	1.84	0.40	***	0.13	21.78	0.54
Social studies grade	232	1.93	0.54	***	0.13	27.81	0.57
Science grade	233	2.04	0.29	**	0.14	14.19	0.53
Overall/School GPA	177	2.02	0.16		0.14	7.91	0.50
Core GPA[b]	233	1.94	0.32	***	0.11	16.38	0.66
Fail 1 or more courses	278	0.30	-0.04		0.04	-14.05	0.41
Days absent[c]	204	9.04	-0.97		1.33	-10.77	0.51
Suspended last year[d]	142	0.04	-0.01		0.04	-24.56	0.14
Graduate 4-year college or beyond	312	0.73	0.06		0.04	8.26	0.33
Homework: 3 hours or more per week	314	0.53	0.06		0.05	10.90	0.24
Involvement with Risk Behavior							
Consumed any alcohol in last 30 days	215	0.23	0.01		0.06	4.27	0.30
Used illegal drugs in last 30 days	209	0.09	-0.01		0.04	-17.00	0.38
Arrested in last 6 months	218	0.06	-0.02		0.04	-26.81	0.32
Ever pregnant or made someone pregnant	217	0.03	-0.03		0.03	-99.32	0.24
Fought, hurt, or used weapon in last 6 months	217	0.40	-0.03		0.06	-6.50	0.27
Total number of risk behaviors	205	0.77	-0.07		0.13	-8.53	0.47

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[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

[b] Core GPA calculated as the average of English, Math, Social Studies, and Science grades.

[c] Three (3) programs were excluded from the analysis of days absent due to incomplete reporting.

[d] Seven (7) programs were excluded from the analysis of any suspensions due to incomplete reporting.

APPENDIX E

POST-PROGRAM SUBGROUP IMPACTS TABLES

Exhibit E.1

POST-PROGRAM PARTICIPANT IMPACTS
EDUCATIONALLY AT-RISK STUDENTS
DIFFERENCE-IN-DIFFERENCE MODEL

		Educationally At-Risk (N=348)			Not Educationally At-Risk (N=702)			
Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
Civic/Social Attitudes and Behavior								
Personal and social responsibility (Search Institute scale: range 5-25):								
Social welfare subscale	1045	16.86	0.50	0.39	18.38	0.11	0.28	ns
Community involvement	1045	16.87	0.27	0.41	18.43	0.26	0.30	ns
Search-Total Personal/Social Responsibility (range 10-50)	1045	33.73	0.77	0.67	36.80	0.37	0.48	ns
Cultural Diversity (range 1-4)	1048	3.26	0.08 *	0.04	3.47	0.04	0.03	ns
Psychosocial maturity (Greenberger scale: range 1-4):								
Communication Skills subscale	1046	2.72	-0.07	0.05	2.95	-0.01	0.03	ns
Work Orientation subscale	1046	2.60	-0.05	0.05	2.82	0.00	0.03	ns
Service Leadership (Sieber scale: range 1-4)	1048	2.72	0.18 ***	0.05	2.78	0.10 ***	0.04	ns
Total Civic Attitudes	1043	96.76	3.37 ***	1.20	102.79	1.76 **	0.86	ns
Volunteer Behavior								
Volunteered for a community organization or got involved in other community service in last 6 months	1026	0.76	0.19 ***	0.05	0.74	0.12 ***	0.03	ns
Average hours doing volunteer work or community service in last 6 months	923	36.89	48.43 ***	18.71	29.56	40.52 ***	12.76	ns
Educational Impacts (Connell scale: range 1-4):								
Educational competence	976	3.01	0.00	0.04	3.12	-0.00	0.03	ns
School engagement	1047	3.22	0.18 ***	0.05	3.20	0.07 **	0.03	**

[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

Exhibit E.1 (Continued)
POST-PROGRAM PARTICIPANT IMPACTS
EDUCATIONALLY AT-RISK STUDENTS
DIFFERENCE-IN-DIFFERENCE MODEL

		Educationally At-Risk (N=348)			Not Educationally At-Risk (N=702)			
Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
English grade	851	1.94	0.01	0.13	2.49	-0.11	0.09	ns
Math grade	760	1.81	0.27 *	0.14	2.49	0.22 **	0.10	ns
Social studies grade	828	1.94	0.29 **	0.14	2.62	0.01	0.09	*
Science grade	735	2.03	0.19	0.14	2.63	0.14	0.10	ns
Overall/School GPA	780	1.95	0.10	0.10	2.77	0.04	0.06	ns
Core GPA[b]	904	1.94	0.21 **	0.09	2.57	0.04	0.06	ns
Fail 1 or more courses	1009	0.24	-0.05	0.05	0.12	-0.01	0.03	ns
Days absent[c]	877	11.68	-0.28	0.91	6.19	1.09 *	0.65	ns
Suspended last year[d]	518	0.22	-0.01	0.06	0.09	-0.02	0.04	ns
Graduate 4-year college or beyond	1029	0.67	-0.01	0.04	0.84	0.03	0.03	ns
Homework: 3 hours or more per week	1032	0.48	-0.01	0.06	0.74	-0.00	0.04	ns
Involvement with Risk Behavior								
Consumed any alcohol in last 30 days	721	0.33	-0.02	0.06	0.43	-0.01	0.05	ns
Used illegal drugs in last 30 days	698	0.20	0.02	0.05	0.14	-0.04	0.04	ns
Arrested in last 6 months	722	0.18	0.03	0.04	0.07	-0.04	0.03	ns
Ever pregnant or made someone pregnant	719	0.09	-0.04	0.03	0.03	-0.03	0.03	ns
Fought, hurt, or used weapon in last 6 months	724	0.44	-0.02	0.06	0.26	-0.05	0.05	ns
Total number of risk behaviors	688	1.22	-0.02	0.13	0.96	-0.21 **	0.11	ns

[b] Core GPA calculated as the average of English, Math, Social Studies, and Science grades.
[c] Three (3) programs were excluded from the analysis of days absent due to incomplete reporting.
[d] Seven (7) programs were excluded from the analysis of any suspensions due to incomplete reporting.

Exhibit E.2
POST-PROGRAM PARTICIPANT IMPACTS
ECONOMICALLY DISADVANTAGED STUDENTS
DIFFERENCE-IN-DIFFERENCE MODEL

		Economically Disadvantaged (N=346)			Not Economically Disadvantaged (N=566)			
Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
Civic/Social Attitudes and Behavior								
Personal and social responsibility (Search Institute scale: range 5-25):								
Social welfare subscale	907	16.95	0.35	0.41	18.28	-0.05	0.32	ns
Community involvement	907	17.34	0.26	0.43	18.25	-0.01	0.34	ns
Search-Total Personal/Social Responsibility (range 10-50)	907	34.30	0.61	0.70	36.54	-0.06	0.55	ns
Cultural Diversity (range 1-4)	910	3.31	0.08 *	0.04	3.45	0.00	0.03	ns
Psychosocial maturity (Greenberger scale: range 1-4):								
Communication Skills subscale	908	2.80	-0.04	0.05	2.92	-0.03	0.04	ns
Work Orientation subscale	908	2.63	-0.09 *	0.05	2.84	0.01	0.04	*
Service Leadership (Sieber scale: range 1-4)	910	2.76	0.25 ***	0.05	2.78	0.05	0.04	***
Total Civic Attitudes	905	98.19	3.86 ***	1.23	102.36	0.36	0.96	**
Volunteer Behavior								
Volunteered for a community organization or got involved in other community service in last 6 months	890	0.79	0.23 ***	0.05	0.74	0.09 **	0.04	**
Average hours doing volunteer work or community service in last 6 months	801	35.04	31.77	20.34	29.31	57.83 ***	15.20	ns
Educational Impacts (Connell scale: range 1-4):								
Educational competence	842	3.06	0.01	0.04	3.10	0.00	0.03	ns
School engagement	909	3.24	0.14 ***	0.05	3.21	0.10 ***	0.04	ns

[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

Exhibit E.2 (Continued)
POST-PROGRAM PARTICIPANT IMPACTS
ECONOMICALLY DISADVANTAGED STUDENTS
DIFFERENCE-IN-DIFFERENCE MODEL

		Economically Disadvantaged (N=346)			Not Economically Disadvantaged (N=566)			
Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
English grade	766	2.11	0.02	0.13	2.48	-0.05	0.10	ns
Math grade	686	2.01	0.30 **	0.14	2.47	0.20 *	0.12	ns
Social studies grade	742	2.01	0.14	0.14	2.61	0.04	0.10	ns
Science grade	664	2.30	0.22	0.14	2.53	0.01	0.12	ns
Overall/School GPA	709	2.17	0.02	0.09	2.74	-0.02	0.07	ns
Core GPA[b]	814	2.11	0.15 *	0.09	2.55	0.05	0.07	ns
Fail 1 or more courses	897	0.20	-0.04	0.05	0.14	-0.03	0.04	ns
Days absent[c]	803	11.71	0.10	0.97	6.05	0.76	0.70	ns
Suspended last year[d]	475	0.22	0.04	0.06	0.08	-0.02	0.04	ns
Graduate 4-year college or beyond	895	0.70	-0.04	0.04	0.84	0.02	0.03	ns
Homework: 3 hours or more per week	897	0.54	0.00	0.06	0.68	-0.03	0.05	ns
Involvement with Risk Behavior								
Consumed any alcohol in last 30 days	630	0.27	-0.06	0.06	0.42	-0.01	0.06	ns
Used illegal drugs in last 30 days	611	0.12	-0.02	0.04	0.14	-0.06	0.04	ns
Arrested in last 6 months	632	0.12	-0.03	0.04	0.12	0.01	0.04	ns
Ever pregnant or made someone pregnant	629	0.07	-0.07 **	0.03	0.04	-0.03	0.03	ns
Fought, hurt, or used weapon in last 6 months	634	0.41	0.06	0.06	0.32	-0.11 **	0.06	**
Total number of risk behaviors	600	0.96	-0.10	0.13	1.06	-0.27 **	0.12	ns

[b] Core GPA calculated as the average of English, Math, Social Studies, and Science grades.
[c] Three (3) programs were excluded from the analysis of days absent due to incomplete reporting.
[d] Seven (7) programs were excluded from the analysis of any suspensions due to incomplete reporting.

Exhibit E.3
POST-PROGRAM PARTICIPANT IMPACTS
FEMALE AND MALE STUDENTS
DIFFERENCE-IN-DIFFERENCE MODEL

		Female (N=590)			Male (N=459)			
Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
Civic/Social Attitudes and Behavior								
Personal and social responsibility (Search Institute scale: range 5-25):								
Social welfare subscale	1044	18.85	0.19	0.30	16.67	0.26	0.34	ns
Community involvement	1044	18.51	0.17	0.32	17.12	0.27	0.36	ns
Search-Total Personal/Social Responsibility (range 10-50)	1044	37.37	0.37	0.53	33.78	0.54	0.59	ns
Cultural Diversity (range 1-4)	1047	3.53	0.06 *	0.03	3.25	0.04	0.04	ns
Psychosocial maturity (Greenberger scale: range 1-4):								
Communication Skills subscale	1045	2.98	0.03	0.04	2.75	-0.10 **	0.04	**
Work Orientation subscale	1045	2.78	0.02	0.04	2.70	-0.06	0.04	ns
Service Leadership (Sieber scale: range 1-4)	1047	2.86	0.15 ***	0.04	2.65	0.11 **	0.04	ns
Total Civic Attitudes	1042	104.77	2.47 ***	0.94	96.01	1.96 *	1.05	ns
Volunteer Behavior								
Volunteered for a community organization or got involved in other community service in last 6 months	1025	0.82	0.12 ***	0.04	0.67	0.17 ***	0.04	ns
Average hours doing volunteer work or community service in last 6 months	922	35.72	39.09 ***	14.18	28.89	47.54 ***	15.68	ns
Educational Impacts (Connell scale: range 1-4):								
Educational competence	975	3.11	0.03	0.03	3.04	-0.04	0.03	ns
School engagement	1046	3.31	0.12 ***	0.04	3.10	0.08 **	0.04	ns

[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

Exhibit E.3 (Continued)
POST-PROGRAM PARTICIPANT IMPACTS
FEMALE AND MALE STUDENTS
DIFFERENCE-IN-DIFFERENCE MODEL

		Female (N=590)			Male (N=459)			
Characteristic	N	Control Group Mean (1)	Impact [a] (2)	Standard Error of Impact (3)	Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
English grade	850	2.49	-0.06	0.10	2.11	-0.09	0.12	ns
Math grade	759	2.32	0.40 ***	0.11	2.20	0.03	0.12	**
Social studies grade	826	2.46	0.18 *	0.10	2.32	-0.02	0.12	ns
Science grade	733	2.46	0.13	0.11	2.36	0.19	0.12	ns
Overall/School GPA	778	2.68	0.14 **	0.07	2.38	-0.06	0.08	*
Core GPA[b]	902	2.48	0.15 **	0.07	2.24	0.01	0.08	ns
Fail 1 or more courses	1008	0.16	-0.03	0.04	0.17	-0.02	0.04	ns
Days absent[c]	875	9.24	0.27	0.72	6.82	1.13	0.79	ns
Suspended last year[d]	516	0.11	-0.01	0.04	0.14	-0.01	0.05	ns
Graduate 4-year college or beyond	1028	0.78	0.06 *	0.03	0.77	-0.04	0.04	**
Homework: 3 hours or more per week	1031	0.74	0.03	0.05	0.54	-0.05	0.05	ns
Involvement with Risk Behavior								
Consumed any alcohol in last 30 days	721	0.39	-0.04	0.05	0.39	0.03	0.06	ns
Used illegal drugs in last 30 days	699	0.17	-0.03	0.04	0.16	0.00	0.04	ns
Arrested in last 6 months	723	0.07	-0.03	0.04	0.16	0.01	0.04	ns
Ever pregnant or made someone pregnant	720	0.05	-0.04	0.03	0.06	-0.03	0.03	ns
Fought, hurt, or used weapon in last 6 months	725	0.28	-0.08	0.05	0.39	-0.01	0.05	ns
Total number of risk behaviors	688	1.00	-0.21 *	0.11	1.14	-0.05	0.12	ns

[b] Core GPA calculated as the average of English, Math, Social Studies, and Science grades.

[c] Three (3) programs were excluded from the analysis of days absent due to incomplete reporting.

[d] Seven (7) programs were excluded from the analysis of any suspensions due to incomplete reporting.

Exhibit E.4
POST-PROGRAM PARTICIPANT IMPACTS
WHITE AND NON-WHITE STUDENTS
DIFFERENCE-IN-DIFFERENCE MODEL

		White (N=585)			Non-White (N=457)			
Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
Civic/Social Attitudes and Behavior								
Personal and social responsibility (Search Institute scale: range 5-25):								
Social welfare subscale	1037	18.40	0.46	0.30	17.11	-0.07	0.33	ns
Community involvement	1037	18.24	0.29	0.32	17.39	0.05	0.36	ns
Search-Total Personal/Social Responsibility (range 10-50)	1037	36.63	0.76	0.52	34.50	-0.02	0.58	ns
Cultural Diversity (range 1-4)	1040	3.45	0.06 *	0.03	3.33	0.04	0.04	ns
Psychosocial maturity (Greenberger scale: range 1-4):								
Communication Skills subscale	1038	2.92	0.00	0.04	2.81	-0.07	0.04	ns
Work Orientation subscale	1038	2.81	0.01	0.04	2.66	-0.05	0.04	ns
Service Leadership (Sieber scale: range 1-4)	1040	2.80	0.09 **	0.04	2.70	0.17 ***	0.04	ns
Total Civic Attitudes	1035	102.58	2.37 **	0.93	98.21	1.99 *	1.04	ns
Volunteer Behavior								
Volunteered for a community organization or got involved in other community service in last 6 months	1018	0.78	0.12 ***	0.04	0.70	0.16 ***	0.04	ns
Average hours doing volunteer work or community service in last 6 months	917	26.48	40.49 ***	13.76	40.42	47.05 ***	16.06	ns
Educational Impacts (Connell scale: range 1-4):								
Educational competence	968	3.07	0.03	0.03	3.09	-0.05	0.03	*
School engagement	1039	3.20	0.09 ***	0.04	3.23	0.12 ***	0.04	ns

[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

Exhibit E.4 (Continued)
POST-PROGRAM PARTICIPANT IMPACTS
WHITE AND NON-WHITE STUDENTS
DIFFERENCE-IN-DIFFERENCE MODEL

		White (N=585)			Non-White (N=457)			
Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
English grade	843	2.47	-0.12	0.10	2.15	0.00	0.11	ns
Math grade	752	2.44	0.06	0.11	2.05	0.45 ***	0.12	**
Social studies grade	822	2.54	0.05	0.10	2.22	0.15	0.11	ns
Science grade	729	2.54	-0.02	0.12	2.29	0.33 ***	0.12	**
Overall/School GPA	772	2.71	0.01	0.07	2.31	0.14 *	0.08	ns
Core GPA[b]	895	2.53	0.00	0.07	2.17	0.21 ***	0.08	**
Fail 1 or more courses	1001	0.16	0.02	0.04	0.16	-0.08 **	0.04	*
Days absent[c]	869	5.00	0.46	0.70	12.11	0.93	0.80	ns
Suspended last year[d]	513	0.03	-0.08 *	0.04	0.24	0.08 *	0.05	**
Graduate 4-year college or beyond	1021	0.83	0.06 **	0.03	0.72	-0.04	0.04	**
Homework: 3 hours or more per week	1024	0.74	0.02	0.04	0.52	-0.03	0.05	ns
Involvement with Risk Behavior								
Consumed any alcohol in last 30 days	716	0.43	0.01	0.06	0.35	-0.02	0.05	ns
Used illegal drugs in last 30 days	694	0.15	-0.03	0.04	0.17	-0.01	0.04	ns
Arrested in last 6 months	718	0.08	-0.03	0.04	0.15	0.01	0.03	ns
Ever pregnant or made someone pregnant	715	0.03	-0.04	0.03	0.07	-0.03	0.03	ns
Fought, hurt, or used weapon in last 6 months	720	0.34	-0.17 ***	0.05	0.33	0.05	0.05	***
Total number of risk behaviors	683	1.05	-0.29 **	0.12	1.07	-0.01	0.11	*

[b] Core GPA calculated as the average of English, Math, Social Studies, and Science grades.
[c] Three (3) programs were excluded from the analysis of days absent due to incomplete reporting.
[d] Seven (7) programs were excluded from the analysis of any suspensions due to incomplete reporting.

Exhibit E.5

POST-PROGRAM PARTICIPANT IMPACTS
AT-RISK BEHAVIOR AT BASELINE
DIFFERENCE-IN-DIFFERENCE MODEL

		At-Risk Behavior (N=396)			No At-Risk Behavior (N=344)			
Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
Civic/Social Attitudes and Behavior								
Personal and social responsibility (Search Institute scale: range 5-25):								
Social welfare subscale	738	16.77	0.44	0.37	18.24	0.34	0.41	ns
Community involvement	738	16.61	0.94 **	0.38	18.40	-0.59	0.43	***
Search-Total Personal/Social Responsibility (range 10-50)	738	33.37	1.38 **	0.63	36.64	-0.25	0.70	*
Cultural Diversity (range 1-4)	738	3.30	0.08 *	0.04	3.42	0.03	0.05	ns
Psychosocial maturity (Greenberger scale: range 1-4):								
Communication Skills subscale	736	2.76	-0.13 ***	0.05	2.93	0.04	0.05	**
Work Orientation subscale	736	2.57	-0.09 *	0.05	2.82	0.04	0.05	*
Service Leadership (Sieber scale: range 1-4)	738	2.60	0.20 ***	0.05	2.86	0.10 *	0.05	ns
Total Civic Attitudes	736	95.63	4.13 ***	1.14	102.84	1.08	1.27	*
Volunteer Behavior								
Volunteered for a community organization or got involved in other community service in last 6 months	721	0.72	0.17 ***	0.05	0.74	0.15 ***	0.05	ns
Average hours doing volunteer work or community service in last 6 months	642	26.94	45.47 ***	17.31	38.24	32.45 *	19.25	ns
Educational Impacts (Connell scale: range 1-4):								
Educational competence	681	2.94	-0.01	0.04	3.15	0.03	0.04	ns
School engagement	737	3.03	0.11 **	0.04	3.35	0.10 **	0.05	ns

[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

Exhibit E.5 (Continued)
POST-PROGRAM PARTICIPANT IMPACTS
AT-RISK BEHAVIOR AT BASELINE
DIFFERENCE-IN-DIFFERENCE MODEL

		At-Risk Behavior (N=396)			No At-Risk Behavior (N=344)			
Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
English grade	629	1.96	-0.12	0.13	2.34	-0.03	0.14	ns
Math grade	573	1.91	0.23 *	0.13	2.27	0.14	0.14	ns
Social studies grade	621	2.05	0.06	0.13	2.31	0.00	0.14	ns
Science grade	582	2.10	0.33 **	0.13	2.42	0.07	0.14	ns
Overall/School GPA	531	2.15	0.15 *	0.09	2.47	-0.03	0.09	ns
Core GPA[b]	651	1.99	0.12	0.09	2.31	0.02	0.10	ns
Fail 1 or more courses	740	0.24	-0.09 *	0.05	0.13	-0.04	0.05	ns
Days absent[c]	626	10.25	1.13	0.97	7.21	0.07	1.00	ns
Suspended last year[d]	364	0.15	-0.06	0.05	0.12	0.03	0.06	ns
Graduate 4-year college or beyond	722	0.67	0.03	0.04	0.77	-0.03	0.05	ns
Homework: 3 hours or more per week	724	0.52	-0.01	0.06	0.62	-0.04	0.06	ns
Involvement with Risk Behavior								
Consumed any alcohol in last 30 days	715	0.67	0.03	0.05	0.01	-0.08	0.06	ns
Used illegal drugs in last 30 days	693	0.27	-0.00	0.04	0.01	-0.04	0.04	ns
Arrested in last 6 months	717	0.20	0.03	0.03	0.02	-0.06	0.04	*
Ever pregnant or made someone pregnant	714	0.10	-0.02	0.03	0.00	-0.05 *	0.03	ns
Fought, hurt, or used weapon in last 6 months	719	0.59	-0.03	0.05	0.02	-0.07	0.05	ns
Total number of risk behaviors	682	1.82	-0.03	0.11	0.06	-0.29 **	0.12	*

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[b] Core GPA calculated as the average of English, Math, Social Studies, and Science grades.

[c] Three (3) programs were excluded from the analysis of days absent due to incomplete reporting.

[d] Seven (7) programs were excluded from the analysis of any suspensions due to incomplete reporting.

Exhibit E.6
POST-PROGRAM PARTICIPANT IMPACTS VOLUNTEER VS. NOT VOLUNTEER AT BASELINE DIFFERENCE-IN-DIFFERENCE MODEL

		Volunteer (N=450)			Not Volunteer (N=438)			
Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
Civic/Social Attitudes and Behavior								
Personal and social responsibility (Search Institute scale: range 5-25):								
Social welfare subscale	883	19.51	0.40	0.35	17.22	0.63 *	0.35	ns
Community involvement	883	19.52	1.00 ***	0.37	17.02	-0.38	0.37	***
Search-Total Personal/Social Responsibility (range 10-50)	883	39.04	1.40 **	0.62	34.23	0.26	0.62	ns
Cultural Diversity (range 1-4)	887	3.55	0.13 ***	0.04	3.32	-0.02	0.04	***
Psychosocial maturity (Greenberger scale: range 1-4):								
Communication Skills subscale	887	2.99	0.03	0.04	2.80	-0.08 *	0.04	*
Work Orientation subscale	887	2.89	0.04	0.04	2.67	-0.03	0.04	ns
Service Leadership (Sieber scale: range 1-4)	887	3.04	0.11 **	0.04	2.60	0.18 ***	0.04	ns
Total Civic Attitudes	882	108.42	3.92 ***	1.09	96.68	1.77	1.08	ns
Volunteer Behavior								
Volunteered for a community organization or got involved in other community service in last 6 months	869	0.98	0.09 **	0.04	0.62	0.21 ***	0.04	**
Average hours doing volunteer work or community service in last 6 months	799	74.40	23.08	16.66	0.00	59.26 ***	17.06	ns
Educational Impacts (Connell scale: range 1-4):								
Educational competence	827	3.15	0.02	0.03	3.04	-0.01	0.03	ns
School engagement	887	3.37	0.11 ***	0.04	3.11	0.11 ***	0.04	ns

[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

Exhibit E.6 (Continued)
POST-PROGRAM PARTICIPANT IMPACTS
VOLUNTEER VS. NOT VOLUNTEER AT BASELINE
DIFFERENCE-IN-DIFFERENCE MODEL

		Volunteer (N=450)			Not Volunteer (N=438)			
Characteristic	**N**	**Control Group Mean (1)**	**Impact[a] (2)**	**Standard Error of Impact (3)**	**Control Group Mean (4)**	**Impact[a] (5)**	**Standard Error of Impact (6)**	**Test of Difference in Impacts[a] (7)**
English grade	719	2.54	-0.09	0.12	2.15	-0.01	0.12	ns
Math grade	641	2.48	0.26 **	0.13	2.10	0.06	0.13	ns
Social studies grade	693	2.58	0.09	0.12	2.24	-0.03	0.12	ns
Science grade	629	2.54	0.12	0.12	2.24	0.15	0.12	ns
Overall/School GPA	646	2.73	-0.05	0.08	2.40	0.09	0.08	ns
Core GPA[b]	760	2.56	0.07	0.08	2.20	0.05	0.08	ns
Fail 1 or more courses	849	0.13	0.02	0.04	0.18	-0.05	0.04	ns
Days absent[c]	743	6.92	0.48	0.81	8.95	1.16	0.82	ns
Suspended last year[d]	435	0.10	0.03	0.05	0.15	-0.03	0.05	ns
Graduate 4-year college or beyond	873	0.85	0.01	0.04	0.75	-0.02	0.04	ns
Homework: 3 hours or more per week	875	0.77	0.01	0.05	0.56	-0.06	0.05	ns
Involvement with Risk Behavior								
Consumed any alcohol in last 30 days	621	0.34	0.08	0.06	0.38	-0.09 *	0.05	**
Used illegal drugs in last 30 days	600	0.10	-0.00	0.05	0.18	-0.03	0.04	ns
Arrested in last 6 months	620	0.07	-0.04	0.04	0.13	0.03	0.04	ns
Ever pregnant or made someone pregnant	619	0.05	-0.06 **	0.03	0.05	-0.05 *	0.03	ns
Fought, hurt, or used weapon in last 6 months	622	0.31	-0.02	0.06	0.35	-0.10 *	0.05	ns
Total number of risk behaviors	592	0.89	-0.05	0.12	1.10	-0.31 ***	0.11	ns

[b] Core GPA calculated as the average of English, Math, Social Studies, and Science grades.

[c] Three (3) programs were excluded from the analysis of days absent due to incomplete reporting.

[d] Seven (7) programs were excluded from the analysis of any suspensions due to incomplete reporting.

Exhibit E.7
POST-PROGRAM PARTICIPANT IMPACTS
STUDENTS IN SERVICE CLASS LAST YEAR
DIFFERENCE-IN-DIFFERENCE MODEL

		In Service Class (N=289)			Not in Service Class (N=742)			
Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
Civic/Social Attitudes and Behavior								
Personal and social responsibility (Search Institute scale: range 5-25):								
Social welfare subscale	1026	18.50	-0.01	0.34	17.59	0.29	0.25	ns
Community involvement	1026	18.85	0.06	0.36	17.56	0.28	0.27	ns
Search-Total Personal/Social Responsibility (range 10-50)	1026	37.35	0.05	0.59	35.15	0.58	0.43	ns
Cultural Diversity (range 1-4)	1029	3.43	0.05	0.04	3.39	0.05 *	0.03	ns
Psychosocial maturity (Greenberger scale: range 1-4):								
Communication Skills subscale	1027	2.99	-0.03	0.04	2.83	-0.02	0.03	ns
Work Orientation subscale	1027	2.86	-0.04	0.04	2.70	-0.01	0.03	ns
Service Leadership (Sieber scale: range 1-4)	1029	2.97	0.11 ***	0.04	2.69	0.13 ***	0.03	ns
Total Civic Attitudes	1024	104.87	1.75 *	1.05	99.27	2.37 ***	0.45	ns
Volunteer Behavior								
Volunteered for a community organization or got involved in other community service in last 6 months	1007	0.94	0.07 *	0.04	0.69	0.17 ***	0.03	**
Average hours doing volunteer work or community service in last 6 months	908	65.69	31.40 **	15.69	21.41	49.97 ***	11.48	ns
Educational Impacts (Connell scale: range 1-4):								
Educational competence	961	3.10	0.01	0.03	3.07	-0.01	0.02	ns
School engagement	1028	3.34	0.12 ***	0.04	3.18	0.10 ***	0.03	ns

[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

Exhibit E.7 (Continued)
POST-PROGRAM PARTICIPANT IMPACTS
STUDENTS IN SERVICE CLASS LAST YEAR
DIFFERENCE-IN-DIFFERENCE MODEL

		In Service Class (N=289)			Not in Service Class (N=742)			
Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
English grade	836	2.53	-0.22 *	0.12	2.25	-0.03	0.08	ns
Math grade	746	2.33	0.23 *	0.12	2.25	0.23 **	0.09	ns
Social studies grade	813	2.58	0.11	0.12	2.34	0.10	0.08	ns
Science grade	722	2.38	0.06	0.12	2.43	0.19 **	0.09	ns
Overall/School GPA	765	2.68	0.04	0.08	2.50	0.07	0.06	ns
Core GPA[b]	887	2.50	-0.00	0.08	2.33	0.12 **	0.06	ns
Fail 1 or more courses	990	0.14	0.02	0.04	0.17	-0.04	0.03	ns
Days absent[c]	861	6.14	1.98 **	0.78	8.54	0.22	0.57	**
Suspended last year[d]	510	0.10	-0.02	0.05	0.13	-0.02	0.03	ns
Graduate 4-year college or beyond	1010	0.80	0.02	0.04	0.77	0.02	0.03	ns
Homework: 3 hours or more per week	1013	0.75	0.01	0.05	0.61	-0.02	0.04	ns
Involvement with Risk Behavior								
Consumed any alcohol in last 30 days	705	0.35	-0.01	0.06	0.39	-0.01	0.04	ns
Used illegal drugs in last 30 days	683	0.14	-0.02	0.05	0.16	-0.03	0.03	ns
Arrested in last 6 months	707	0.08	-0.00	0.04	0.12	-0.01	0.03	ns
Ever pregnant or made someone pregnant	704	0.04	-0.04	0.03	0.06	-0.03	0.02	ns
Fought, hurt, or used weapon in last 6 months	709	0.31	0.04	0.06	0.35	-0.07 *	0.04	*
Total number of risk behaviors	672	0.94	-0.08	0.13	1.08	-0.16 *	0.09	ns

[b] Core GPA calculated as the average of English, Math, Social Studies, and Science grades.
[c] Three (3) programs were excluded from the analysis of days absent due to incomplete reporting.
[d] Seven (7) programs were excluded from the analysis of any suspensions due to incomplete reporting.

Exhibit E.8
POST-PROGRAM PARTICIPANT IMPACTS
STUDENTS EVER PARTICIPATED IN SERVICE CLASS
DIFFERENCE-IN-DIFFERENCE MODEL

		Ever in Service Class (N=442)			Not in Service Class (N=591)			
Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
Civic/Social Attitudes and Behavior								
Personal and social responsibility (Search Institute scale: range 5-25):								
Social welfare subscale	1028	18.50	0.14	0.31	17.38	0.26	0.28	ns
Community involvement	1028	18.85	0.42	0.34	17.24	0.11	0.30	ns
Search-Total Personal/Social Responsibility (range 10-50)	1028	37.35	0.56	0.55	34.62	0.36	0.49	ns
Cultural Diversity (range 1-4)	1031	3.43	0.06	0.04	3.37	0.04	0.03	ns
Psychosocial maturity (Greenberger scale: range 1-4):								
Communication Skills subscale	1029	2.99	-0.04	0.04	2.79	-0.02	0.03	ns
Work Orientation subscale	1029	2.85	-0.01	0.04	2.67	-0.01	0.03	ns
Service Leadership (Sieber scale: range 1-4)	1031	2.93	0.08 **	0.04	2.65	0.16 ***	0.04	ns
Total Civic Attitudes	1026	104.48	2.02 **	0.98	98.15	2.31 ***	0.87	ns
Volunteer Behavior								
Volunteered for a community organization or got involved in other community service in last 6 months	1009	0.90	0.10 ***	0.04	0.66	0.17 ***	0.03	ns
Average hours doing volunteer work or community service in last 6 months	910	53.19	24.17	14.70	19.08	60.37 ***	13.01	**
Educational Impacts (Connell scale: range 1-4):								
Educational competence	962	3.12	-0.01	0.03	3.06	0.00	0.03	ns
School engagement	1030	3.31	0.13 ***	0.04	3.15	0.09 ***	0.03	ns

[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

Exhibit E.8 (Continued)
POST-PROGRAM PARTICIPANT IMPACTS
STUDENTS EVER PARTICIPATED IN SERVICE CLASS
DIFFERENCE-IN-DIFFERENCE MODEL

		Ever in Service Class (N=442)			Not in Service Class (N=591)			
Characteristic	**N**	**Control Group Mean (1)**	**Impact[a] (2)**	**Standard Error of Impact (3)**	**Control Group Mean (4)**	**Impact[a] (5)**	**Standard Error of Impact (6)**	**Test of Difference in Impacts[a] (7)**
English grade	836	2.47	-0.10	0.11	2.22	-0.08	0.09	ns
Math grade	746	2.38	0.28 **	0.12	2.19	0.19 *	0.10	ns
Social studies grade	813	2.58	0.20 *	0.11	2.28	0.04	0.09	ns
Science grade	722	2.37	0.13	0.12	2.44	0.17 *	0.10	ns
Overall/School GPA	765	2.62	0.04	0.07	2.49	0.08	0.06	ns
Core GPA[b]	887	2.48	0.08	0.07	2.30	0.09	0.06	ns
Fail 1 or more courses	992	0.15	-0.01	0.04	0.17	-0.03	0.03	ns
Days absent[c]	861	6.35	1.30 *	0.72	9.04	0.25	0.65	ns
Suspended last year[d]	510	0.09	0.00	0.05	0.15	-0.03	0.04	ns
Graduate 4-year college or beyond	1012	0.81	0.02	0.03	0.76	0.02	0.03	ns
Homework: 3 hours or more per week	1015	0.75	-0.00	0.05	0.58	-0.01	0.04	ns
Involvement with Risk Behavior								
Consumed any alcohol in last 30 days	708	0.37	0.04	0.05	0.39	-0.05	0.05	ns
Used illegal drugs in last 30 days	686	0.14	0.02	0.04	0.17	-0.05	0.04	ns
Arrested in last 6 months	710	0.06	0.00	0.04	0.15	-0.02	0.03	ns
Ever pregnant or made someone pregnant	707	0.05	-0.05 *	0.03	0.06	-0.02	0.02	ns
Fought, hurt, or used weapon in last 6 months	712	0.27	-0.00	0.05	0.38	-0.07	0.04	ns
Total number of risk behaviors	675	0.91	-0.03	0.12	1.14	-0.21 **	0.10	ns

[b] Core GPA calculated as the average of English, Math, Social Studies, and Science grades.
[c] Three (3) programs were excluded from the analysis of days absent due to incomplete reporting.
[d] Seven (7) programs were excluded from the analysis of any suspensions due to incomplete reporting.

Exhibit E.9
POST-PROGRAM PARTICIPANT IMPACTS
MIDDLE AND HIGH SCHOOL STUDENTS
DIFFERENCE-IN-DIFFERENCE MODEL

		Middle School (N=319)			High School (N=733)			
Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
Civic/Social Attitudes and Behavior								
Personal and social responsibility (Search Institute scale: range 5-25):								
Social welfare subscale	1047	17.22	0.34	0.40	18.05	0.17	0.27	ns
Community involvement	1047	17.62	0.64	0.43	17.94	0.08	0.29	ns
Search-Total Personal/Social Responsibility (range 10-50)	1047	34.84	0.98	0.70	35.98	0.25	0.47	ns
Cultural Diversity (range 1-4)	1050	3.27	0.05	0.04	3.45	0.06 *	0.03	ns
Psychosocial maturity (Greenberger scale: range 1-4):								
Communication Skills subscale	1048	2.74	-0.03	0.05	2.92	-0.03	0.03	ns
Work Orientation subscale	1048	2.65	-0.08	0.05	2.78	0.02	0.03	ns
Service Leadership (Sieber scale: range 1-4)	1050	2.80	0.10 *	0.05	2.74	0.14 ***	0.03	ns
Total Civic Attitudes	1045	98.82	2.43 *	1.24	101.31	2.23 ***	0.83	ns
Volunteer Behavior								
Volunteered for a community organization or got involved in other community service in last 6 months	1028	0.88	0.20 ***	0.05	0.69	0.12 ***	0.03	ns
Average hours doing volunteer work or community service in last 6 months	925	50.52	18.47	18.95	25.07	53.73 ***	12.35	ns
Educational Impacts (Connell scale: range 1-4):								
Educational competence	978	3.01	-0.03	0.04	3.11	0.01	0.03	ns
School engagement	1049	3.23	0.11 **	0.05	3.20	0.11 ***	0.03	ns

[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

Exhibit E.9 (Continued)
POST-PROGRAM PARTICIPANT IMPACTS
MIDDLE AND HIGH SCHOOL STUDENTS
DIFFERENCE-IN-DIFFERENCE MODEL

		Middle School (N=319)			High School (N=733)			
Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
English grade	852	1.95	-0.05	0.15	2.43	-0.08	0.09	ns
Math grade	761	1.84	0.22	0.15	2.41	0.24 **	0.10	ns
Social studies grade	829	1.93	0.29 **	0.15	2.55	0.02	0.09	ns
Science grade	735	2.04	0.10	0.15	2.57	0.18 *	0.10	ns
Overall/School GPA	781	2.02	0.01	0.11	2.67	0.07	0.06	ns
Core GPA[b]	905	1.94	0.14	0.10	2.49	0.08	0.06	ns
Fail 1 or more courses	1011	0.30	0.09 *	0.05	0.11	-0.07 **	0.03	***
Days absent[c]	878	9.04	0.12	1.09	7.77	0.80	0.60	ns
Suspended last year[d]	519	0.04	0.04	0.06	0.15	-0.03	0.04	ns
Graduate 4-year college or beyond	1031	0.73	0.01	0.04	0.80	0.02	0.03	ns
Homework: 3 hours or more per week	1034	0.53	-0.01	0.06	0.69	-0.00	0.04	ns
Involvement with Risk Behavior								
Consumed any alcohol in last 30 days	722	0.23	0.00	0.07	0.45	-0.02	0.05	ns
Used illegal drugs in last 30 days	700	0.09	-0.02	0.05	0.20	-0.02	0.03	ns
Arrested in last 6 months	724	0.06	-0.09 *	0.05	0.14	0.03	0.03	**
Ever pregnant or made someone pregnant	721	0.03	-0.05	0.04	0.06	-0.03	0.02	ns
Fought, hurt, or used weapon in last 6 months	726	0.40	-0.06	0.07	0.32	-0.03	0.04	ns
Total number of risk behaviors	689	0.77	-0.19	0.15	1.20	-0.11	0.10	ns

[b] Core GPA calculated as the average of English, Math, Social Studies, and Science grades.
[c] Three (3) programs were excluded from the analysis of days absent due to incomplete reporting.
[d] Seven (7) programs were excluded from the analysis of any suspensions due to incomplete reporting.

Exhibit E.10
POST-PROGRAM PARTICIPANT IMPACTS
EDUCATIONALLY AT-RISK STUDENTS
ANALYSIS OF COVARIANCE MODEL

		Educationally At-Risk (N=348)			Not Educationally At-Risk (N=702)			
Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
Civic/Social Attitudes and Behavior								
Personal and social responsibility (Search Institute scale: range 5-25):								
Social welfare subscale	1045	16.86	1.06 ***	0.33	18.38	0.42 *	0.24	ns
Community involvement	1045	16.87	1.05 ***	0.35	18.43	0.78 ***	0.25	ns
Search-Total Personal/Social Responsibility (range 10-50)	1045	33.73	1.97 ***	0.59	36.80	1.11 ***	0.42	ns
Cultural Diversity (range 1-4)	1048	3.26	0.12 ***	0.04	3.47	0.06 **	0.03	ns
Psychosocial maturity (Greenberger scale: range 1-4):								
Communication Skills subscale	1046	2.72	-0.07 *	0.04	2.95	0.03	0.03	*
Work Orientation subscale	1046	2.60	0.01	0.04	2.82	0.04	0.03	ns
Service Leadership (Sieber scale: range 1-4)	1048	2.72	0.25 ***	0.04	2.78	0.22 ***	0.03	ns
Total Civic Attitudes	1043	96.76	5.28 ***	1.10	102.79	3.59 ***	0.79	ns
Volunteer Behavior								
Volunteered for a community organization or got involved in other community service in last 6 months	1026	0.76	0.21 ***	0.04	0.74	0.19 ***	0.03	ns
Average hours doing volunteer work or community service in last 6 months	923	36.89	67.50 ***	13.28	29.56	56.76 ***	9.06	ns
Educational Impacts (Connell scale: range 1-4):								
Educational competence	976	3.01	0.03	0.03	3.12	0.04	0.02	ns
School engagement	1047	3.22	0.17 ***	0.04	3.20	0.10 ***	0.03	ns

[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

Exhibit E.10 (Continued)
POST-PROGRAM PARTICIPANT IMPACTS
EDUCATIONALLY AT-RISK STUDENTS
ANALYSIS OF COVARIANCE MODEL

		Educationally At-Risk (N=348)			Not Educationally At-Risk (N=702)			
Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
English grade	851	1.94	0.15	0.11	2.49	0.02	0.08	ns
Math grade	760	1.81	0.38 ***	0.12	2.49	0.19 **	0.09	ns
Social studies grade	828	1.94	0.45 ***	0.11	2.62	0.05	0.08	***
Science grade	735	2.03	0.22 *	0.12	2.63	0.14	0.09	ns
Overall/School GPA	780	1.95	0.17 **	0.09	2.77	0.06	0.05	ns
Core GPA[b]	904	1.94	0.27 ***	0.08	2.57	0.06	0.06	**
Fail 1 or more courses	1009	0.24	-0.08 **	0.04	0.12	-0.01	0.03	ns
Days absent[c]	877	11.68	-1.11	0.75	6.19	0.17	0.53	ns
Suspended last year[d]	518	0.22	-0.05	0.05	0.09	0.02	0.03	ns
Graduate 4-year college or beyond	1029	0.67	0.05	0.04	0.84	0.06 **	0.03	ns
Homework: 3 hours or more per week	1032	0.48	0.06	0.05	0.74	0.01	0.03	ns
Involvement with Risk Behavior								
Consumed any alcohol in last 30 days	721	0.33	0.00	0.05	0.43	-0.03	0.04	ns
Used illegal drugs in last 30 days	698	0.20	0.02	0.04	0.14	-0.03	0.03	ns
Arrested in last 6 months	722	0.18	0.04	0.03	0.07	-0.03	0.03	*
Ever pregnant or made someone pregnant	719	0.09	-0.04	0.03	0.03	-0.02	0.02	ns
Fought, hurt, or used weapon in last 6 months	724	0.44	-0.05	0.05	0.26	-0.04	0.04	ns
Total number of risk behaviors	688	1.22	-0.00	0.12	0.96	-0.19 *	0.10	ns

[b] Core GPA calculated as the average of English, Math, Social Studies, and Science grades.
[c] Three (3) programs were excluded from the analysis of days absent due to incomplete reporting.
[d] Seven (7) programs were excluded from the analysis of any suspensions due to incomplete reporting.

Exhibit E.11

POST-PROGRAM PARTICIPANT IMPACTS
ECONOMICALLY DISADVANTAGED STUDENTS
ANALYSIS OF COVARIANCE MODEL

		Economically Disadvantaged (N=346)			Not Economically Disadvantaged (N=566)			
Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
Civic/Social Attitudes and Behavior								
Personal and social responsibility (Search Institute scale: range 5-25):								
Social welfare subscale	907	16.95	0.66 *	0.35	18.28	0.54 *	0.28	ns
Community involvement	907	17.34	0.70 *	0.37	18.25	0.75 **	0.29	ns
Search-Total Personal/Social Responsibility (range 10-50)	907	34.30	1.26 **	0.62	36.54	1.12 **	0.49	ns
Cultural Diversity (range 1-4)	910	3.31	0.09 **	0.04	3.45	0.05	0.03	ns
Psychosocial maturity (Greenberger scale: range 1-4):								
Communication Skills subscale	908	2.80	-0.06	0.05	2.92	0.01	0.04	ns
Work Orientation subscale	908	2.63	-0.05	0.04	2.84	0.05	0.03	*
Service Leadership (Sieber scale: range 1-4)	910	2.76	0.28 ***	0.05	2.78	0.20 ***	0.04	ns
Total Civic Attitudes	905	98.19	4.75 ***	1.13	102.36	2.95 ***	0.90	ns
Volunteer Behavior								
Volunteered for a community organization or got involved in other community service in last 6 months	890	0.79	0.22 ***	0.04	0.74	0.17 ***	0.03	ns
Average hours doing volunteer work or community service in last 6 months	801	35.04	58.54 ***	14.24	29.31	77.09 ***	10.63	ns
Educational Impacts (Connell scale: range 1-4):								
Educational competence	842	3.06	0.01	0.04	3.10	0.06 **	0.03	ns
School engagement	909	3.24	0.13 ***	0.04	3.21	0.12 ***	0.03	ns

[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

Exhibit E.11 (Continued)
POST-PROGRAM PARTICIPANT IMPACTS
ECONOMICALLY DISADVANTAGED STUDENTS
ANALYSIS OF COVARIANCE MODEL

		Economically Disadvantaged (N=346)			Not Economically Disadvantaged (N=566)			
Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
English grade	766	2.11	0.08	0.11	2.48	0.16 *	0.09	ns
Math grade	686	2.01	0.30 **	0.12	2.47	0.25 **	0.10	ns
Social studies grade	742	2.01	0.16	0.11	2.61	0.21 **	0.09	ns
Science grade	664	2.30	0.12	0.12	2.53	0.12	0.10	ns
Overall/School GPA	709	2.17	0.04	0.09	2.74	0.03	0.06	ns
Core GPA[b]	814	2.11	0.14 *	0.08	2.55	0.11 *	0.06	ns
Fail 1 or more courses	897	0.20	-0.05	0.04	0.14	-0.06 *	0.03	ns
Days absent[c]	803	11.71	-0.39	0.77	6.05	-0.20	0.56	ns
Suspended last year[d]	475	0.22	0.01	0.04	0.08	-0.01	0.03	ns
Graduate 4-year college or beyond	895	0.70	-0.01	0.04	0.84	0.06 **	0.03	ns
Homework: 3 hours or more per week	897	0.54	0.01	0.05	0.68	0.04	0.04	ns
Involvement with Risk Behavior								
Consumed any alcohol in last 30 days	630	0.27	-0.02	0.05	0.42	-0.04	0.05	ns
Used illegal drugs in last 30 days	611	0.12	-0.00	0.04	0.14	-0.07 *	0.04	ns
Arrested in last 6 months	632	0.12	-0.02	0.03	0.12	0.02	0.03	ns
Ever pregnant or made someone pregnant	629	0.07	-0.05 *	0.03	0.04	-0.01	0.03	ns
Fought, hurt, or used weapon in last 6 months	634	0.41	-0.01	0.05	0.32	-0.09 **	0.05	ns
Total number of risk behaviors	600	0.96	-0.06	0.12	1.06	-0.26 **	0.12	ns

[b] Core GPA calculated as the average of English, Math, Social Studies, and Science grades.

[c] Three (3) programs were excluded from the analysis of days absent due to incomplete reporting.

[d] Seven (7) programs were excluded from the analysis of any suspensions due to incomplete reporting.

Exhibit E.12
POST-PROGRAM PARTICIPANT IMPACTS
FEMALE AND MALE STUDENTS
ANALYSIS OF COVARIANCE MODEL

		Female (N=590)			Male (N=459)			
Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
Civic/Social Attitudes and Behavior								
Personal and social responsibility (Search Institute scale: range 5-25):								
Social welfare subscale	1044	18.85	0.40	0.26	16.67	0.94 ***	0.29	ns
Community involvement	1044	18.51	0.65 **	0.27	17.12	1.08 ***	0.31	ns
Search-Total Personal/Social Responsibility (range 10-50)	1044	37.37	0.98 **	0.46	33.78	1.87 ***	0.52	ns
Cultural Diversity (range 1-4)	1047	3.53	0.08 ***	0.03	3.25	0.08 **	0.03	ns
Psychosocial maturity (Greenberger scale: range 1-4):								
Communication Skills subscale	1045	2.98	0.04	0.03	2.75	-0.06 *	0.04	*
Work Orientation subscale	1045	2.78	0.08 **	0.03	2.70	-0.03	0.04	**
Service Leadership (Sieber scale: range 1-4)	1047	2.86	0.24 ***	0.04	2.65	0.21 ***	0.04	ns
Total Civic Attitudes	1042	104.77	3.99 ***	0.86	96.01	4.29 ***	0.97	ns
Volunteer Behavior								
Volunteered for a community organization or got involved in other community service in last 6 months	1025	0.82	0.16 ***	0.03	0.67	0.25 ***	0.03	**
Average hours doing volunteer work or community service in last 6 months	922	35.72	57.96 ***	10.07	28.89	61.68 ***	11.12	ns
Educational Impacts (Connell scale: range 1-4):								
Educational competence	975	3.11	0.06 **	0.03	3.04	-0.00	0.03	ns
School engagement	1046	3.31	0.14 ***	0.03	3.10	0.10 ***	0.04	ns

[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

Exhibit E.12 (Continued)
POST-PROGRAM PARTICIPANT IMPACTS
FEMALE AND MALE STUDENTS
ANALYSIS OF COVARIANCE MODEL

		Female (N=590)			Male (N=459)			
Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
English grade	850	2.49	0.05	0.09	2.11	0.08	0.10	ns
Math grade	759	2.32	0.39 ***	0.10	2.20	0.08	0.11	**
Social studies grade	826	2.46	0.25 ***	0.09	2.32	0.09	0.10	ns
Science grade	733	2.46	0.13	0.10	2.36	0.21 *	0.11	ns
Overall/School GPA	778	2.68	0.14 **	0.06	2.38	0.01	0.07	ns
Core GPA[b]	902	2.48	0.17 ***	0.06	2.24	0.06	0.07	ns
Fail 1 or more courses	1008	0.16	-0.05	0.03	0.17	-0.02	0.03	ns
Days absent[c]	875	9.24	-1.08 *	0.59	6.82	0.77	0.65	**
Suspended last year[d]	516	0.11	0.00	0.03	0.14	0.00	0.04	ns
Graduate 4-year college or beyond	1028	0.78	0.11 ***	0.03	0.77	-0.02	0.03	***
Homework: 3 hours or more per week	1031	0.74	0.04	0.04	0.54	0.01	0.04	ns
Involvement with Risk Behavior								
Consumed any alcohol in last 30 days	721	0.39	-0.06	0.05	0.39	0.04	0.05	ns
Used illegal drugs in last 30 days	699	0.17	-0.01	0.03	0.16	-0.01	0.04	ns
Arrested in last 6 months	723	0.07	-0.02	0.03	0.16	0.02	0.03	ns
Ever pregnant or made someone pregnant	720	0.05	-0.03	0.02	0.06	-0.03	0.03	ns
Fought, hurt, or used weapon in last 6 months	725	0.28	-0.07	0.04	0.39	-0.02	0.04	ns
Total number of risk behaviors	688	1.00	-0.18 *	0.10	1.14	-0.04	0.11	ns

[b] Core GPA calculated as the average of English, Math, Social Studies, and Science grades.
[c] Three (3) programs were excluded from the analysis of days absent due to incomplete reporting.
[d] Seven (7) programs were excluded from the analysis of any suspensions due to incomplete reporting.

Exhibit E.13

POST-PROGRAM PARTICIPANT IMPACTS
WHITE AND NON-WHITE STUDENTS
ANALYSIS OF COVARIANCE MODEL

		White(N=585)			Non-White (N=457)			
Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
Civic/Social Attitudes and Behavior								
Personal and social responsibility (Search Institute scale: range 5-25):								
Social welfare subscale	1037	18.40	0.86 ***	0.26	17.11	0.35	0.29	ns
Community involvement	1037	18.24	0.93 ***	0.27	17.39	0.68 **	0.30	ns
Search-Total Personal/Social Responsibility (range 10-50)	1037	36.63	1.68 ***	0.46	34.50	0.91 *	0.51	ns
Cultural Diversity (range 1-4)	1040	3.45	0.10 ***	0.03	3.33	0.06 *	0.03	ns
Psychosocial maturity (Greenberger scale: range 1-4):								
Communication Skills subscale	1038	2.92	0.03	0.03	2.81	-0.05	0.04	ns
Work Orientation subscale	1038	2.81	0.06 *	0.03	2.66	-0.01	0.04	ns
Service Leadership (Sieber scale: range 1-4)	1040	2.80	0.23 ***	0.04	2.70	0.24 ***	0.04	ns
Total Civic Attitudes	1035	102.58	4.53 ***	0.86	98.21	3.54 ***	0.95	ns
Volunteer Behavior								
Volunteered for a community organization or got involved in other community service in last 6 months	1018	0.78	0.18 ***	0.03	0.70	0.22 ***	0.03	ns
Average hours doing volunteer work or community service in last 6 months	917	26.48	58.45 ***	9.77	40.42	61.75 ***	11.38	ns
Educational Impacts (Connell scale: range 1-4):								
Educational competence	968	3.07	0.07 ***	0.03	3.09	-0.02	0.03	**
School engagement	1039	3.20	0.11 ***	0.03	3.23	0.12 ***	0.04	ns

[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

Exhibit E.13 (Continued)
POST-PROGRAM PARTICIPANT IMPACTS
WHITE AND NON-WHITE STUDENTS
ANALYSIS OF COVARIANCE MODEL

		White (N=585)			Non-White (N=457)			
Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
English grade	843	2.47	0.13	0.09	2.15	-0.01	0.09	ns
Math grade	752	2.44	0.16	0.10	2.05	0.37 ***	0.10	ns
Social studies grade	822	2.54	0.23 **	0.09	2.22	0.12	0.09	ns
Science grade	729	2.54	0.13	0.10	2.29	0.21 **	0.10	ns
Overall/School GPA	772	2.71	0.07	0.06	2.31	0.13 *	0.07	ns
Core GPA[b]	895	2.53	0.10	0.06	2.17	0.16 **	0.07	ns
Fail 1 or more courses	1001	0.16	-0.01	0.03	0.16	-0.06 *	0.03	ns
Days absent[c]	869	5.00	-0.37	0.58	12.11	-0.09	0.66	ns
Suspended last year[d]	513	0.03	-0.02	0.03	0.24	0.03	0.04	ns
Graduate 4-year college or beyond	1021	0.83	0.08 ***	0.03	0.72	0.02	0.03	ns
Homework: 3 hours or more per week	1024	0.74	0.04	0.04	0.52	0.01	0.04	ns
Involvement with Risk Behavior								
Consumed any alcohol in last 30 days	716	0.43	-0.00	0.05	0.35	-0.02	0.05	ns
Used illegal drugs in last 30 days	694	0.15	-0.02	0.04	0.17	-0.01	0.03	ns
Arrested in last 6 months	718	0.08	0.01	0.03	0.15	-0.01	0.03	ns
Ever pregnant or made someone pregnant	715	0.03	-0.02	0.03	0.07	-0.04 *	0.02	ns
Fought, hurt, or used weapon in last 6 months	720	0.34	-0.14 ***	0.04	0.33	0.02	0.04	***
Total number of risk behaviors	683	1.05	-0.22 **	0.11	1.07	-0.03	0.10	ns

[b] Core GPA calculated as the average of English, Math, Social Studies, and Science grades.
[c] Three (3) programs were excluded from the analysis of days absent due to incomplete reporting.
[d] Seven (7) programs were excluded from the analysis of any suspensions due to incomplete reporting.

Exhibit E.14
POST-PROGRAM PARTICIPANT IMPACTS
AT-RISK BEHAVIOR AT BASELINE
ANALYSIS OF COVARIANCE MODEL

Characteristic	N	At-Risk Behavior (N=396) Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	No At-Risk Behavior (N=344) Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
Civic/Social Attitudes and Behavior								
Personal and social responsibility (Search Institute scale: range 5-25):								
Social welfare subscale	738	16.77	1.05 ***	0.31	18.24	0.60 *	0.34	ns
Community involvement	738	16.61	1.68 ***	0.32	18.40	0.14	0.36	***
Search-Total Personal/Social Responsibility (range 10-50)	738	33.37	2.58 ***	0.55	36.64	0.63	0.61	**
Cultural Diversity (range 1-4)	738	3.30	0.12 ***	0.04	3.42	0.07	0.04	ns
Psychosocial maturity (Greenberger scale: range 1-4):								
Communication Skills subscale	736	2.76	-0.08 **	0.04	2.93	0.03	0.05	*
Work Orientation subscale	736	2.57	-0.01	0.04	2.82	0.08 *	0.04	ns
Service Leadership (Sieber scale: range 1-4)	738	2.60	0.30 ***	0.04	2.86	0.20 ***	0.05	*
Total Civic Attitudes	736	95.63	6.29 ***	1.06	102.84	2.97 **	1.17	**
Volunteer Behavior								
Volunteered for a community organization or got involved in other community service in last 6 months	721	0.72	0.23 ***	0.03	0.74	0.20 ***	0.04	ns
Average hours doing volunteer work or community service in last 6 months	642	26.94	56.60 ***	12.15	38.24	51.21 ***	13.53	ns
Educational Impacts (Connell scale: range 1-4):								
Educational competence	681	2.94	0.04	0.03	3.15	0.06 *	0.04	ns
School engagement	737	3.03	0.14 ***	0.04	3.35	0.11 ***	0.04	ns

[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

Exhibit E.14 (Continued)
POST-PROGRAM PARTICIPANT IMPACTS
AT-RISK BEHAVIOR AT BASELINE
ANALYSIS OF COVARIANCE MODEL

		At-Risk Behavior (N=396)			No At-Risk Behavior (N=344)			
Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
English grade	629	1.96	0.09	0.11	2.34	0.08	0.12	ns
Math grade	573	1.91	0.31 ***	0.11	2.27	0.27 **	0.12	ns
Social studies grade	621	2.05	0.16	0.11	2.31	0.17	0.12	ns
Science grade	582	2.10	0.35 ***	0.11	2.42	0.09	0.12	ns
Overall/School GPA	531	2.15	0.18 **	0.08	2.47	0.06	0.08	ns
Core GPA[b]	651	1.99	0.18 **	0.08	2.31	0.10	0.09	ns
Fail 1 or more courses	740	0.24	-0.09 **	0.04	0.13	-0.04	0.04	ns
Days absent[c]	626	10.25	-0.02	0.79	7.21	-0.26	0.81	ns
Suspended last year[d]	364	0.15	0.02	0.04	0.12	-0.03	0.05	ns
Graduate 4-year college or beyond	722	0.67	0.07 **	0.04	0.77	0.01	0.04	ns
Homework: 3 hours or more per week	724	0.52	0.05	0.05	0.62	0.01	0.05	ns
Involvement with Risk Behavior								
Consumed any alcohol in last 30 days	715	0.67	0.03	0.04	0.01	-0.08	0.05	*
Used illegal drugs in last 30 days	693	0.27	0.00	0.03	0.01	-0.03	0.04	ns
Arrested in last 6 months	717	0.20	0.03	0.03	0.02	-0.04	0.03	*
Ever pregnant or made someone pregnant	714	0.10	-0.02	0.02	0.00	-0.04	0.03	ns
Fought, hurt, or used weapon in last 6 months	719	0.59	-0.03	0.04	0.02	-0.07	0.04	ns
Total number of risk behaviors	682	1.82	-0.01	0.10	0.06	-0.26 **	0.11	*

[b] Core GPA calculated as the average of English, Math, Social Studies, and Science grades.

[c] Three (3) programs were excluded from the analysis of days absent due to incomplete reporting.

[d] Seven (7) programs were excluded from the analysis of any suspensions due to incomplete reporting.

Exhibit E.15
POST-PROGRAM PARTICIPANT IMPACTS
VOLUNTEER VS. NOT VOLUNTEER AT BASELINE
ANALYSIS OF COVARIANCE MODEL

		Volunteered (N=450)			Not Volunteered (N=438)			
Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
Civic/Social Attitudes and Behavior								
Personal and social responsibility (Search Institute scale: range 5-25):								
Social welfare subscale	883	19.51	0.63 **	0.30	17.22	0.82 ***	0.30	ns
Community involvement	883	19.52	1.28 ***	0.32	17.02	0.37	0.32	**
Search-Total Personal/Social Responsibility (range 10-50)	883	39.04	1.86 ***	0.54	34.23	1.10 **	0.54	ns
Cultural Diversity (range 1-4)	887	3.55	0.14 ***	0.03	3.32	0.02	0.03	**
Psychosocial maturity (Greenberger scale: range 1-4):								
Communication Skills subscale	887	2.99	0.06	0.04	2.80	-0.05	0.04	**
Work Orientation subscale	887	2.89	0.08 **	0.04	2.67	0.01	0.04	ns
Service Leadership (Sieber scale: range 1-4)	887	3.04	0.20 ***	0.04	2.60	0.29 ***	0.04	*
Total Civic Attitudes	882	108.42	5.13 ***	0.98	96.68	3.85 ***	0.99	ns
Volunteer Behavior								
Volunteered for a community organization or got involved in other community service in last 6 months	869	0.98	0.11 ***	0.03	0.62	0.28 ***	0.03	***
Average hours doing volunteer work or community service in last 6 months	799	74.40	55.99 ***	11.64	0.00	59.14 ***	11.87	ns
Educational Impacts (Connell scale: range 1-4):								
Educational competence	827	3.15	0.07 **	0.03	3.04	0.02	0.03	ns
School engagement	887	3.37	0.12 ***	0.04	3.11	0.13 ***	0.04	ns

[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

Exhibit E.15 (Continued)
POST-PROGRAM PARTICIPANT IMPACTS
VOLUNTEER VS. NOT VOLUNTEER AT BASELINE
ANALYSIS OF COVARIANCE MODEL

		Volunteered (N=450)			Not Volunteered (N=438)			
Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
English grade	719	2.54	0.10	0.10	2.15	0.08	0.10	ns
Math grade	641	2.48	0.31 ***	0.11	2.10	0.10	0.11	ns
Social studies grade	693	2.58	0.25 **	0.10	2.24	0.06	0.10	ns
Science grade	629	2.54	0.23 **	0.11	2.24	0.13	0.11	ns
Overall/School GPA	646	2.73	0.03	0.07	2.40	0.08	0.07	ns
Core GPA[b]	760	2.56	0.15 **	0.07	2.20	0.07	0.07	ns
Fail 1 or more courses	849	0.13	-0.00	0.03	0.18	-0.06 *	0.03	ns
Days absent[c]	743	6.92	-0.34	0.67	8.95	-0.20	0.68	ns
Suspended last year[d]	435	0.10	-0.01	0.04	0.15	-0.00	0.04	ns
Graduate 4-year college or beyond	873	0.85	0.05	0.03	0.75	0.02	0.03	ns
Homework: 3 hours or more per week	875	0.77	0.04	0.04	0.56	-0.01	0.04	ns
Involvement with Risk Behavior								
Consumed any alcohol in last 30 days	621	0.34	0.07	0.05	0.38	-0.09 *	0.05	**
Used illegal drugs in last 30 days	600	0.10	0.00	0.04	0.18	-0.03	0.03	ns
Arrested in last 6 months	620	0.07	-0.04	0.03	0.13	0.05 *	0.03	*
Ever pregnant or made someone pregnant	619	0.05	-0.06 **	0.03	0.05	-0.03	0.03	ns
Fought, hurt, or used weapon in last 6 months	622	0.31	-0.04	0.05	0.35	-0.09 *	0.04	ns
Total number of risk behaviors	592	0.89	-0.06	0.11	1.10	-0.24 **	0.11	ns

[b] Core GPA calculated as the average of English, Math, Social Studies, and Science grades.
[c] Three (3) programs were excluded from the analysis of days absent due to incomplete reporting.
[d] Seven (7) programs were excluded from the analysis of any suspensions due to incomplete reporting.

Exhibit E.16
POST-PROGRAM PARTICIPANT IMPACTS
STUDENTS IN SERVICE CLASS LAST YEAR
ANALYSIS OF COVARIANCE MODEL

Characteristic	N	In Service Class (N=289) Control Group Mean (1)	In Service Class (N=289) Impact[a] (2)	In Service Class (N=289) Standard Error of Impact (3)	Not in Service Class (N=742) Control Group Mean (4)	Not in Service Class (N=742) Impact[a] (5)	Not in Service Class (N=742) Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
Civic/Social Attitudes and Behavior								
Personal and social responsibility (Search Institute scale: range 5-25):								
Social welfare subscale	1026	18.50	0.58 **	0.29	17.59	0.64 ***	0.21	ns
Community involvement	1026	18.85	0.92 ***	0.31	17.56	0.82 ***	0.23	ns
Search-Total Personal/Social Responsibility (range 10-50)	1026	37.35	1.34 **	0.52	35.15	1.36 ***	0.38	ns
Cultural Diversity (range 1-4)	1029	3.43	0.09 ***	0.03	3.39	0.08 ***	0.03	ns
Psychosocial maturity (Greenberger scale: range 1-4):								
Communication Skills subscale	1027	2.99	-0.01	0.04	2.83	-0.00	0.03	ns
Work Orientation subscale	1027	2.86	0.02	0.04	2.70	0.04	0.03	ns
Service Leadership (Sieber scale: range 1-4)	1029	2.97	0.24 ***	0.04	2.69	0.22 ***	0.03	ns
Total Civic Attitudes	1024	104.87	4.25 ***	0.97	99.27	4.04 ***	0.71	ns
Volunteer Behavior								
Volunteered for a community organization or got involved in other community service in last 6 months	1007	0.94	0.16 ***	0.03	0.69	0.21 ***	0.02	ns
Average hours doing volunteer work or community service in last 6 months	908	65.69	55.31 ***	11.09	21.41	65.32 ***	8.10	ns
Educational Impacts (Connell scale: range 1-4):								
Educational competence	961	3.10	0.05 *	0.03	3.07	0.03	0.02	ns
School engagement	1028	3.34	0.13 ***	0.04	3.18	0.11 ***	0.03	ns

[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

Exhibit E.16 (Continued)
POST-PROGRAM PARTICIPANT IMPACTS
STUDENTS IN SERVICE CLASS LAST YEAR
ANALYSIS OF COVARIANCE MODEL

		In Service Class (N=289)			Not In Service Class (N=742)			
Characteristic	**N**	**Control Group Mean (1)**	**Impact[a] (2)**	**Standard Error of Impact (3)**	**Control Group Mean (4)**	**Impact[a] (5)**	**Standard Error of Impact (6)**	**Test of Difference in Impacts[a] (7)**
English grade	836	2.53	-0.05	0.10	2.25	0.09	0.07	ns
Math grade	746	2.33	0.26 **	0.11	2.25	0.23 ***	0.08	ns
Social studies grade	813	2.58	0.22 **	0.10	2.34	0.16 **	0.07	ns
Science grade	722	2.38	0.12	0.11	2.43	0.17 **	0.08	ns
Overall/School GPA	765	2.68	0.10	0.07	2.50	0.08	0.05	ns
Core GPA[b]	887	2.50	0.06	0.07	2.33	0.14 ***	0.05	ns
Fail 1 or more courses	990	0.14	-0.01	0.03	0.17	-0.04	0.02	ns
Days absent[c]	861	6.14	0.43	0.64	8.54	-0.43	0.47	ns
Suspended last year[d]	510	0.10	0.04	0.04	0.13	-0.02	0.03	ns
Graduate 4-year college or beyond	1010	0.80	0.05	0.03	0.77	0.05 **	0.02	ns
Homework: 3 hours or more per week	1013	0.75	0.04	0.04	0.61	0.01	0.03	ns
Involvement with Risk Behavior								
Consumed any alcohol in last 30 days	705	0.35	0.01	0.05	0.39	-0.02	0.04	ns
Used illegal drugs in last 30 days	683	0.14	-0.02	0.04	0.16	-0.01	0.03	ns
Arrested in last 6 months	707	0.08	0.05	0.03	0.12	-0.01	0.02	ns
Ever pregnant or made someone pregnant	704	0.04	-0.03	0.03	0.06	-0.02	0.02	ns
Fought, hurt, or used weapon in last 6 months	709	0.31	0.04	0.05	0.35	-0.07 **	0.03	**
Total number of risk behaviors	672	0.94	-0.01	0.12	1.08	-0.13	0.08	ns

[b] Core GPA calculated as the average of English, Math, Social Studies, and Science grades.
[c] Three (3) programs were excluded from the analysis of days absent due to incomplete reporting.
[d] Seven (7) programs were excluded from the analysis of any suspensions due to incomplete reporting.

Exhibit E.17
POST-PROGRAM PARTICIPANT IMPACTS
STUDENTS EVER PARTICIPATED IN SERVICE CLASS
ANALYSIS OF COVARIANCE MODEL

		Ever In Service Class (N=442)			Not In Service Class (N=591)			
Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
Civic/Social Attitudes and Behavior								
Personal and social responsibility (Search Institute scale: range 5-25):								
Social welfare subscale	1028	18.50	0.49 *	0.27	17.38	0.73 ***	0.24	ns
Community involvement	1028	18.85	0.94 ***	0.29	17.24	0.80 ***	0.26	ns
Search-Total Personal/Social Responsibility (range 10-50)	1028	37.35	1.34 ***	0.48	34.62	1.40 ***	0.43	ns
Cultural Diversity (range 1-4)	1031	3.43	0.09 ***	0.03	3.37	0.07 **	0.03	ns
Psychosocial maturity (Greenberger scale: range 1-4):								
Communication Skills subscale	1029	2.99	-0.02	0.04	2.79	0.01	0.03	ns
Work Orientation subscale	1029	2.85	0.02	0.03	2.67	0.04	0.03	ns
Service Leadership (Sieber scale: range 1-4)	1031	2.93	0.19 ***	0.04	2.65	0.26 ***	0.03	ns
Total Civic Attitudes	1026	104.48	3.87 ***	0.90	98.15	4.25 ***	0.80	ns
Volunteer Behavior								
Volunteered for a community organization or got involved in other community service in last 6 months	1009	0.90	.016 ***	0.03	0.66	0.22 ***	0.03	*
Average hours doing volunteer work or community service in last 6 months	910	53.19	48.11	16.36	19.08	72.87 ***	9.15	*
Educational Impacts (Connell scale: range 1-4):								
Educational competence	962	3.12	0.03	0.03	3.06	0.04	0.02	ns
School engagement	1030	3.31	0.13 ***	0.03	3.15	0.11 ***	0.03	ns

[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

Exhibit E.17 (Continued)
POST-PROGRAM PARTICIPANT IMPACTS
STUDENTS EVER PARTICIPATED IN SERVICE CLASS
ANALYSIS OF COVARIANCE MODEL

		Ever in Service Class (N=442)			Not in Service Class (N=591)			
Characteristic	**N**	**Control Group Mean (1)**	**Impact[a] (2)**	**Standard Error of Impact (3)**	**Control Group Mean (4)**	**Impact[a] (5)**	**Standard Error of Impact (6)**	**Test of Difference in Impacts[a] (7)**
English grade	836	2.47	0.06	0.09	2.22	0.04	0.08	ns
Math grade	746	2.38	0.33 ***	0.10	2.19	0.17 *	0.09	ns
Social studies grade	813	2.58	0.25 ***	0.09	2.28	0.12	0.08	ns
Science grade	722	2.37	0.20 *	0.10	2.44	0.12	0.09	ns
Overall/School GPA	765	2.62	0.09	0.06	2.49	0.08	0.06	ns
Core GPA[b]	887	2.48	0.13 **	0.07	2.30	0.10 *	0.06	ns
Fail 1 or more courses	992	0.15	-0.03	0.03	0.17	-0.03	0.03	ns
Days absent[c]	861	6.35	0.10	0.60	9.04	-0.40	0.54	ns
Suspended last year[d]	510	0.09	0.01	0.04	0.15	-0.02	0.03	ns
Graduate 4-year college or beyond	1012	0.81	0.05	0.03	0.76	0.05 **	0.03	ns
Homework: 3 hours or more per week	1015	0.75	0.03	0.04	0.58	0.02	0.04	ns
Involvement with Risk Behavior								
Consumed any alcohol in last 30 days	708	0.37	0.02	0.05	0.39	-0.04	0.04	ns
Used illegal drugs in last 30 days	686	0.14	0.01	0.03	0.17	-0.03	0.03	ns
Arrested in last 6 months	710	0.06	0.03	0.03	0.15	-0.01	0.03	ns
Ever pregnant or made someone pregnant	707	0.05	-0.04 *	0.02	0.06	-0.01	0.02	ns
Fought, hurt, or used weapon in last 6 months	712	0.27	0.02	0.04	0.38	-0.09 **	0.04	**
Total number of risk behaviors	675	0.91	0.01	0.11	1.14	-0.18 **	0.09	ns

[b] Core GPA calculated as the average of English, Math, Social Studies, and Science grades.

[c] Three (3) programs were excluded from the analysis of days absent due to incomplete reporting.

[d] Seven (7) programs were excluded from the analysis of any suspensions due to incomplete reporting.

Exhibit E.18
POST-PROGRAM PARTICIPANT IMPACTS
MIDDLE AND HIGH SCHOOL STUDENTS
ANALYSIS OF COVARIANCE MODEL

		Middle School (N=319)			High school (N=733)			
Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
Civic/Social Attitudes and Behavior								
Personal and social responsibility (Search Institute scale: range 5-25):								
Social welfare subscale	1047	17.22	0.74 **	0.34	18.05	0.58 **	0.23	ns
Community involvement	1047	17.62	1.08 ***	0.36	17.94	0.78 ***	0.24	ns
Search-Total Personal/Social Responsibility (range 10-50)	1047	34.84	1.74 ***	0.61	35.98	1.24 ***	0.41	ns
Cultural Diversity (range 1-4)	1050	3.27	0.09 **	0.04	3.45	0.08 ***	0.03	ns
Psychosocial maturity (Greenberger scale: range 1-4):								
Communication Skills subscale	1048	2.74	-0.00	0.04	2.92	-0.01	0.03	ns
Work Orientation subscale	1048	2.65	-0.01	0.04	2.78	0.05 *	0.03	ns
Service Leadership (Sieber scale: range 1-4)	1050	2.80	0.16 ***	0.05	2.74	0.26 ***	0.03	*
Total Civic Attitudes	1045	98.82	4.04 ***	1.13	101.31	4.21 ***	0.77	ns
Volunteer Behavior								
Volunteered for a community organization or got involved in other community service in last 6 months	1028	0.88	0.17 ***	0.04	0.69	0.21 ***	0.02	ns
Average hours doing volunteer work or community service in last 6 months	925	50.52	33.09 **	13.42	25.07	71.61 ***	8.76	**
Educational Impacts (Connell scale: range 1-4):								
Educational competence	978	3.01	0.04	0.04	3.11	0.03	0.02	ns
School engagement	1049	3.23	0.14 ***	0.04	3.20	0.11 ***	0.03	ns

[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

Exhibit E.18 (Continued)
POST-PROGRAM PARTICIPANT IMPACTS
MIDDLE AND HIGH SCHOOL STUDENTS
ANALYSIS OF COVARIANCE MODEL

		Middle School (N=319)			High School (N=733)			
Characteristic	N	Control Group Mean (1)	Impact [a] (2)	Standard Error of Impact (3)	Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
English grade	852	1.95	0.24 *	0.13	2.43	0.00	0.07	ns
Math grade	761	1.84	0.39 ***	0.13	2.41	0.20 **	0.08	ns
Social studies grade	829	1.93	0.49 ***	0.12	2.55	0.06	0.07	***
Science grade	735	2.04	0.28 **	0.13	2.57	0.12	0.09	ns
Overall/School GPA	781	2.02	0.18 *	0.10	2.67	0.06	0.05	ns
Core GPA[b]	905	1.94	0.29 ***	0.09	2.49	0.07	0.05	**
Fail 1 or more courses	1011	0.30	-0.02	0.04	0.11	-0.04	0.02	ns
Days absent[c]	878	9.04	-1.05	0.90	7.77	-0.02	0.50	ns
Suspended last year[d]	519	0.04	0.01	0.05	0.15	-0.01	0.03	ns
Graduate 4-year college or beyond	1031	0.73	0.06	0.04	0.80	0.05 *	0.03	ns
Homework: 3 hours or more per week	1034	0.53	0.07	0.05	0.69	0.01	0.03	ns
Involvement with Risk Behavior								
Consumed any alcohol in last 30 days	722	0.23	0.01	0.06	0.45	-0.02	0.04	ns
Used illegal drugs in last 30 days	700	0.09	-0.02	0.04	0.20	-0.01	0.03	ns
Arrested in last 6 months	724	0.06	0.01	0.04	0.14	-0.00	0.02	ns
Ever pregnant or made someone pregnant	721	0.03	-0.03	0.03	0.06	-0.03	0.02	ns
Fought, hurt, or used weapon in last 6 months	726	0.40	-0.03	0.05	0.32	-0.05	0.04	ns
Total number of risk behaviors	689	0.77	-0.06	0.14	1.20	-0.14	0.09	ns

[b] Core GPA calculated as the average of English, Math, Social Studies, and Science grades.

[c] Three (3) programs were excluded from the analysis of days absent due to incomplete reporting.

[d] Seven (7) programs were excluded from the analysis of any suspensions due to incomplete reporting.

APPENDIX F

FOLLOW-UP PARTICIPANT IMPACT TABLES

Exhibit F.1
PARTICIPANT IMPACTS AT FOLLOW-UP
ALL PARTICIPANTS
DIFFERENCE-IN-DIFFERENCE MODEL
(N=764)

Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Impact as % of Control Mean (4)	R^2 (5)
Civic/Social Attitudes and Behavior						
Personal and social responsibility (Search Institute scale: range 5-25):						
Social welfare subscale	750	18.33	0.31	0.33	1.71	0.08
Community involvement	750	18.18	0.20	0.35	1.11	0.09
Search - Total Personal/Social Responsibility (range 10-50)	750	36.52	0.52	0.58	1.41	0.09
Cultural Diversity (range 1-4)	751	3.43	-0.00	0.04	-0.07	0.10
Psychosocial maturity (Greenberger scale: range 1-4):						
Communication Skills subscale	750	2.88	0.03	0.04	0.99	0.07
Work Orientation subscale	750	2.77	-0.01	0.04	-0.45	0.11
Service Leadership (Sieber scale: range 1-4)	751	2.81	0.08 *	0.04	2.72	0.14
Total Civic Attitudes	750	102.33	1.25	1.03	1.22	0.13
Volunteer Behavior						
Volunteered for a community organization or got involved in other community service in last 6 months	742	0.76	0.02	0.04	2.45	0.11
Average hours doing volunteer work or community service in last 6 months	678	39.37	19.41	16.76	49.30	0.11

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[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

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Exhibit F.1 (continued)
PARTICIPANT IMPACTS AT FOLLOW-UP
ALL PARTICIPANTS
DIFFERENCE-IN-DIFFERENCE MODEL
(N=764)

Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Impact as % of Control Mean (4)	R^2 (5)
Educational Impacts (Connell scale: range 1-4):						
Educational competence	724	3.05	-0.00	0.03	-0.13	0.10
School engagement	751	3.23	0.07 *	0.04	2.24	0.11
English grade	563	2.25	-0.38 ***	0.12	-16.96	0.16
Math grade	533	2.23	0.12	0.13	5.36	0.12
Social studies grade	524	2.30	0.02	0.12	0.73	0.12
Science grade	508	2.33	0.26 *	0.14	11.20	0.16
Overall/School GPA	468	2.25	-0.06	0.09	-2.57	0.19
Core GPA[b]	592	2.30	-0.03	0.09	-1.31	0.15
Fail 1 or more courses	595	0.19	0.03	0.05	16.31	0.16
Days absent[c]	493	10.59	0.33	0.89	3.09	0.50
Suspended last year[d]	406	0.20	-0.01	0.05	-2.69	0.20
Graduate 4-year college or beyond	742	0.76	0.06	0.04	7.82	0.08
Homework: 3 hours or more per week	726	0.68	0.05	0.05	7.10	0.13
Involvement with Risk Behavior						
Consumed any alcohol in last 30 days	618	0.37	-0.08	0.06	-22.48	0.08
Used illegal drugs in last 30 days	587	0.14	-0.03	0.04	-18.70	0.13
Arrested in last 6 months	619	0.12	-0.01	0.03	-8.02	0.12
Ever pregnant or made someone pregnant	611	0.08	0.02	0.03	29.48	0.08
Fought, hurt, or used weapon in last 6 months	618	0.31	-0.01	0.05	-2.79	0.09
Total number of risk behaviors	579	1.04	-0.08	0.11	-7.60	0.10

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[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

[b] Core GPA calculated as the average of English, Math, Social Studies, and Science grades. Three (3) sites did not report either baseline or follow-up data and were therefore excluded from the analysis.

[c] Four (4) programs were excluded from the analysis of days absent due to incomplete reporting.

[d] Five (5) programs were excluded from the analysis of any suspensions due to incomplete reporting.

Exhibit F.2
PARTICIPANT IMPACTS AT FOLLOW-UP
HIGH SCHOOL PARTICIPANTS
DIFFERENCE-IN-DIFFERENCE MODEL
(N=508)

Characteristic	N	Control Group Mean (1)	Impact[a] (2)		Standard Error of Impact (3)	Impact as % of Control Mean (4)	R^2 (5)
Civic/Social Attitudes and Behavior							
Personal and social responsibility (Search Institute scale: range 5-25):							
Social welfare subscale	506	18.55	0.41		0.38	2.20	0.09
Community involvement	506	18.25	0.16		0.39	0.86	0.06
Search - Total Personal/Social Responsibility (range 10-50)	506	36.80	0.56		0.67	1.53	0.08
Cultural Diversity (range 1-4)	506	3.49	-0.03		0.04	-0.94	0.08
Psychosocial maturity (Greenberger scale: range 1-4):							
Communication Skills subscale	506	2.96	0.04		0.05	1.25	0.04
Work Orientation subscale	506	2.81	-0.00		0.05	-0.10	0.12
Service Leadership (Sieber scale: range 1-4)	506	2.79	0.10	**	0.05	3.63	0.11
Total Civic Attitudes	506	103.07	1.22		1.21	1.18	0.09
Volunteer Behavior							
Volunteered for a community organization or got involved in other community service in last 6 months	503	0.70	0.01		0.05	1.92	0.10
Average hours doing volunteer work or community service in last 6 months	464	32.62	27.83	*	15.04	85.31	0.20

[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

Exhibit F.2 (continued)
PARTICIPANT IMPACTS AT FOLLOW-UP
HIGH SCHOOL PARTICIPANTS
DIFFERENCE-IN-DIFFERENCE MODEL
(N=508)

Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Impact as % of Control Mean (4)	R^2 (5)
Educational Impacts (Connell scale: range 1-4):						
Educational competence	489	3.10	0.00	0.03	0.13	0.11
School engagement	506	3.22	0.09 *	0.05	2.76	0.10
English grade	351	2.28	-0.43 ***	0.16	-18.85	0.19
Math grade	319	2.28	0.21	0.17	9.35	0.19
Social studies grade	321	2.41	0.08	0.15	3.14	0.17
Science grade	295	2.45	0.36 **	0.17	14.77	0.25
Overall/School GPA	300	2.42	0.07	0.11	2.81	0.27
Core GPA[b]	378	2.39	0.02	0.11	0.64	0.24
Fail 1 or more courses	380	0.14	-0.02	0.05	-13.82	0.24
Days absent[c]	342	10.25	0.39	0.97	3.80	0.59
Suspended last year[d]	249	0.27	-0.02	0.07	-6.79	0.20
Graduate 4-year college or beyond	502	0.78	0.06	0.04	7.82	0.10
Homework: 3 hours or more per week	486	0.72	0.08	0.05	11.57	0.15
Involvement with Risk Behavior						
Consumed any alcohol in last 30 days	458	0.41	-0.07	0.07	-18.13	0.08
Used illegal drugs in last 30 days	442	0.17	-0.01	0.05	-7.00	0.13
Arrested in last 6 months	459	0.14	0.02	0.04	16.87	0.11
Ever pregnant or made someone pregnant	455	0.08	0.03	0.04	34.20	0.08
Fought, hurt, or used weapon in last 6 months	458	0.27	-0.02	0.05	-7.75	0.07
Total number of risk behaviors	438	1.09	-0.04	0.12	-3.71	0.10

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[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

[b] Core GPA calculated as the average of English, Math, Social Studies, and Science grades. Three (3) sites did not report either baseline or follow-up data and were therefore excluded from the analysis.

[c] Four (4) programs were excluded from the analysis of days absent due to incomplete reporting.

[d] Five (5) programs were excluded from the analysis of any suspensions due to incomplete reporting.

Exhibit F.3
PARTICIPANT IMPACTS AT FOLLOW-UP
MIDDLE SCHOOL PARTICIPANTS
DIFFERENCE-IN-DIFFERENCE MODEL
(N=256)

Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Impact as % of Control Mean (4)	R^2 (5)
Civic/Social Attitudes and Behavior						
Personal and social responsibility (Search Institute scale: range 5-25):						
Social welfare subscale	244	17.91	-0.22	0.63	-1.20	0.22
Community involvement	244	18.04	0.05	0.71	0.26	0.22
Search - Total Personal/Social Responsibility (range 10-50)	244	35.95	-0.17	1.16	-0.47	0.24
Cultural Diversity (range 1-4)	245	3.31	0.06	0.07	1.73	0.19
Psychosocial maturity (Greenberger scale: range 1-4):						
Communication Skills subscale	244	2.74	0.06	0.07	2.22	0.26
Work Orientation subscale	244	2.71	-0.00	0.08	-0.09	0.12
Service Leadership (Sieber scale: range 1-4)	245	2.84	-0.01	0.08	-0.36	0.18
Total Civic Attitudes	244	100.84	0.36	2.01	0.36	0.26
Volunteer Behavior						
Volunteered for a community organization or got involved in other community service in last 6 months	239	0.88	-0.00	0.07	-0.07	0.18
Average hours doing volunteer work or community service in last 6 months	214	55.04	24.72	45.42	44.92	0.11

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[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

Exhibit F.3 (continued)
PARTICIPANT IMPACTS AT FOLLOW-UP
MIDDLE SCHOOL PARTICIPANTS
DIFFERENCE-IN-DIFFERENCE MODEL
(N=256)

Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Impact as % of Control Mean (4)	R^2 (5)
Educational Impacts (Connell scale: range 1-4):						
Educational competence	235	2.96	-0.02	0.06	-0.74	0.14
School engagement	245	3.24	0.03	0.07	0.78	0.20
English grade	212	2.20	-0.30	0.20	-13.49	0.17
Math grade	214	2.17	0.00	0.21	0.10	0.16
Social studies grade	203	2.12	-0.15	0.21	-7.17	0.15
Science grade	213	2.20	0.11	0.24	4.98	0.15
Overall/School GPA	168	1.95	-0.16	0.16	-8.06	0.23
Core GPA[b]	214	2.16	-0.10	0.16	-4.72	0.16
Fail 1 or more courses	215	0.27	0.13	0.09	48.42	0.15
Days absent[c]	151	11.21	-0.14	2.10	-1.26	0.38
Suspended last year[d]	157	0.08	-0.03	0.06	-40.78	0.31
Graduate 4-year college or beyond	240	0.72	0.05	0.08	7.32	0.11
Homework: 3 hours or more per week	240	0.59	-0.03	0.09	-5.18	0.17
Involvement with Risk Behavior						
Consumed any alcohol in last 30 days	160	0.25	-0.11	0.12	-42.23	0.21
Used illegal drugs in last 30 days	145	0.06	-0.10	0.09	-159.7	0.23
Arrested in last 6 months	160	0.07	-0.14 *	0.08	-197.9	0.19
Ever pregnant or made someone pregnant	156	0.09	0.00	0.07	3.86	0.18
Fought, hurt, or used weapon in last 6 months	160	0.42	-0.00	0.11	-0.40	0.21
Total number of risk behaviors	141	0.87	-0.31	0.30	-35.78	0.17

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[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

[b] Core GPA calculated as the average of English, Math, Social Studies, and Science grades. Three (3) sites did not report either baseline or follow-up data and were therefore excluded from the analysis.

[c] Four (4) programs were excluded from the analysis of days absent due to incomplete reporting.

[d] Five (5) programs were excluded from the analysis of any suspensions due to incomplete reporting.

Exhibit F.4
PARTICIPANT IMPACTS AT FOLLOW-UP
ALL PARTICIPANTS
ANALYSIS OF COVARIANCE MODEL
(N=764)

Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Impact as % of Control Mean (4)	R^2 (5)
Civic/Social Attitudes and Behavior						
Personal and social responsibility (Search Institute scale: range 5-25):						
Social welfare subscale	750	18.33	0.72 **	0.28	3.95	0.31
Community involvement	750	18.18	0.93 ***	0.29	5.14	0.29
Search - Total Personal/Social Responsibility (range 10-50)	750	36.52	1.60 ***	0.51	4.37	0.34
Cultural Diversity (range 1-4)	751	3.43	0.06 *	0.03	1.85	0.39
Psychosocial maturity (Greenberger scale: range 1-4):						
Communication Skills subscale	750	2.88	0.06	0.04	1.95	0.42
Work Orientation subscale	750	2.77	0.04	0.04	1.35	0.37
Service Leadership (Sieber scale: range 1-4)	751	2.81	0.19 ***	0.04	6.67	0.41
Total Civic Attitudes	750	102.33	3.74 ***	0.94	3.65	0.48
Volunteer Behavior						
Volunteered for a community organization or got involved in other community service in last 6 months	742	0.76	0.13 ***	0.03	17.55	0.20
Average hours doing volunteer work or community service in last 6 months	678	39.37	34.40 ***	11.78	87.37	0.18

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[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

Exhibit F.4 (continued)
PARTICIPANT IMPACTS AT FOLLOW-UP
ALL PARTICIPANTS
ANALYSIS OF COVARIANCE MODEL
(N=764)

Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Impact as % of Control Mean (4)	R^2 (5)
Educational Impacts (Connell scale: range 1-4):						
Educational competence	724	3.05	0.05 *	0.03	1.49	0.40
School engagement	751	3.23	0.12 ***	0.04	3.56	0.34
English grade	563	2.25	-0.04	0.10	-1.74	0.37
Math grade	533	2.23	0.30 ***	0.11	13.28	0.36
Social studies grade	524	2.30	0.20 *	0.10	8.66	0.41
Science grade	508	2.33	0.42 ***	0.11	17.84	0.34
Overall/School GPA	468	2.25	0.12	0.08	5.13	0.52
Core GPA[b]	592	2.30	0.14 *	0.08	6.08	0.48
Fail 1 or more courses	595	0.19	-0.02	0.04	-10.78	0.22
Days absent[c]	493	10.59	-0.82	0.69	-7.70	0.29
Suspended last year[d]	406	0.20	-0.06 *	0.03	-29.63	0.22
Graduate 4-year college or beyond	742	0.76	0.13 ***	0.03	17.22	0.28
Homework: 3 hours or more per week	726	0.68	0.09 **	0.04	13.10	0.28
Involvement with Risk Behavior						
Consumed any alcohol in last 30 days	618	0.37	-0.07 *	0.05	-20.02	0.18
Used illegal drugs in last 30 days	587	0.14	0.00	0.03	0.68	0.14
Arrested in last 6 months	619	0.12	-0.01	0.02	-10.06	0.14
Ever pregnant or made someone pregnant	611	0.08	-0.02	0.02	-18.78	0.13
Fought, hurt, or used weapon in last 6 months	618	0.31	-0.04	0.04	-12.85	0.24
Total number of risk behaviors	579	1.04	-0.13	0.10	-12.77	0.24

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[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

[b] Core GPA calculated as the average of English, Math, Social Studies, and Science grades. Three (3) sites did not report either baseline or follow-up data and were therefore excluded from the analysis.

[c] Four (4) programs were excluded from the analysis of days absent due to incomplete reporting.

[d] Five (5) programs were excluded from the analysis of any suspensions due to incomplete reporting.

Exhibit F.5
PARTICIPANT IMPACTS AT FOLLOW-UP
HIGH SCHOOL PARTICIPANTS
ANALYSIS OF COVARIANCE MODEL
(N=508)

Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Impact as % of Control Mean (4)	R^2 (5)
Civic/Social Attitudes and Behavior						
Personal and social responsibility (Search Institute scale: range 5-25):						
Social welfare subscale	506	18.55	0.79 **	0.34	4.28	0.33
Community involvement	506	18.25	1.07 ***	0.34	5.84	0.33
Search - Total Personal/Social Responsibility (range 10-50)	506	36.80	1.76 ***	0.60	4.79	0.36
Cultural Diversity (range 1-4)	506	3.49	0.02	0.04	0.70	0.35
Psychosocial maturity (Greenberger scale: range 1-4):						
Communication Skills subscale	506	2.96	0.06	0.04	1.99	0.37
Work Orientation subscale	506	2.81	0.05	0.04	1.74	0.36
Service Leadership (Sieber scale: range 1-4)	506	2.79	0.24 ***	0.04	8.58	0.42
Total Civic Attitudes	506	103.07	3.97 ***	1.11	3.85	0.48
Volunteer Behavior						
Volunteered for a community organization or got involved in other community service in last 6 months	503	0.70	0.18 ***	0.04	25.68	0.22
Average hours doing volunteer work or community service in last 6 months	464	32.62	34.46 **	13.80	105.64	0.26

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[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

Exhibit F.5 (continued)
PARTICIPANT IMPACTS AT FOLLOW-UP
HIGH SCHOOL PARTICIPANTS
ANALYSIS OF COVARIANCE MODEL
(N=508)

Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Impact as % of Control Mean (4)	R^2 (5)
Educational Impacts (Connell scale: range 1-4):						
Educational competence	489	3.10	0.03	0.03	1.02	0.37
School engagement	506	3.22	0.11 ***	0.04	3.55	0.35
English grade	351	2.28	-0.07	0.13	-2.87	0.38
Math grade	319	2.28	0.36 **	0.15	15.75	0.38
Social studies grade	321	2.41	0.24 *	0.13	9.84	0.42
Science grade	295	2.45	0.33 **	0.14	13.66	0.45
Overall/School GPA	300	2.42	0.16 *	0.10	6.76	0.54
Core GPA[b]	378	2.39	0.14	0.10	5.89	0.53
Fail 1 or more courses	380	0.14	-0.03	0.05	-23.07	0.31
Days absent[c]	342	10.25	-1.04	0.73	-10.15	0.26
Suspended last year[d]	249	0.27	-0.08 *	0.04	-28.30	0.30
Graduate 4-year college or beyond	502	0.78	0.12 ***	0.04	14.92	0.33
Homework: 3 hours or more per week	486	0.72	0.10 **	0.04	13.34	0.30
Involvement with Risk Behavior						
Consumed any alcohol in last 30 days	458	0.41	-0.07	0.05	-17.58	0.18
Used illegal drugs in last 30 days	442	0.17	0.01	0.04	7.81	0.12
Arrested in last 6 months	459	0.14	-0.01	0.02	-4.48	0.11
Ever pregnant or made someone pregnant	455	0.08	-0.03	0.03	-34.12	0.16
Fought, hurt, or used weapon in last 6 months	458	0.27	-0.07 *	0.04	-25.37	0.18
Total number of risk behaviors	438	1.09	-0.13	0.10	-11.92	0.23

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[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

[b] Core GPA calculated as the average of English, Math, Social Studies, and Science grades. Three (3) sites did not report either baseline or follow-up data and were therefore excluded from the analysis.

[c] Four (4) programs were excluded from the analysis of days absent due to incomplete reporting.

[d] Five (5) programs were excluded from the analysis of any suspensions due to incomplete reporting.

Exhibit F.6
PARTICIPANT IMPACTS AT FOLLOW-UP
MIDDLE SCHOOL PARTICIPANTS
ANALYSIS OF COVARIANCE MODEL
(N=256)

Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Impact as % of Control Mean (4)	R^2 (5)
Civic/Social Attitudes and Behavior						
Personal and social responsibility (Search Institute scale: range 5-25):						
Social welfare subscale	244	17.91	0.26	0.53	1.45	0.33
Community involvement	244	18.04	0.39	0.60	2.15	0.29
Search - Total Personal/Social Responsibility (range 10-50)	244	35.95	0.61	1.00	1.70	0.34
Cultural Diversity (range 1-4)	245	3.31	0.16 **	0.07	4.74	0.44
Psychosocial maturity (Greenberger scale: range 1-4):						
Communication Skills subscale	244	2.74	0.08	0.06	2.84	0.53
Work Orientation subscale	244	2.71	0.04	0.07	1.61	0.39
Service Leadership (Sieber scale: range 1-4)	245	2.84	0.06	0.08	2.25	0.42
Total Civic Attitudes	244	100.84	2.34	1.87	2.33	0.48
Volunteer Behavior						
Volunteered for a community organization or got involved in other community service in last 6 months	239	0.88	0.03	0.06	3.78	0.21
Average hours doing volunteer work or community service in last 6 months	214	55.04	31.22	23.34	56.73	0.14

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[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

Exhibit F.6 (continued)
PARTICIPANT IMPACTS AT FOLLOW-UP
MIDDLE SCHOOL PARTICIPANTS
ANALYSIS OF COVARIANCE MODEL
(N=256)

Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Impact as % of Control Mean (4)	R^2 (5)
Educational Impacts (Connell scale: range 1-4):						
Educational competence	235	2.96	0.06	0.06	1.91	0.47
School engagement	245	3.24	0.10	0.07	3.17	0.39
English grade	212	2.20	-0.09	0.18	-3.93	0.42
Math grade	214	2.17	0.16	0.18	7.19	0.44
Social studies grade	203	2.12	0.04	0.19	1.83	0.47
Science grade	213	2.20	0.45 **	0.19	20.58	0.29
Overall/School GPA	168	1.95	0.09	0.16	4.83	0.59
Core GPA[b]	214	2.16	0.08	0.15	3.57	0.48
Fail 1 or more courses	215	0.27	0.05	0.07	19.18	0.22
Days absent[c]	151	11.21	0.23	1.65	2.05	0.33
Suspended last year[d]	157	0.08	-0.06	0.05	-71.25	0.29
Graduate 4-year college or beyond	240	0.72	0.15 **	0.07	21.09	0.26
Homework: 3 hours or more per week	240	0.59	0.05	0.07	8.82	0.26
Involvement with Risk Behavior						
Consumed any alcohol in last 30 days	160	0.25	-0.07	0.09	-27.41	0.27
Used illegal drugs in last 30 days	145	0.06	-0.04	0.07	-59.60	0.34
Arrested in last 6 months	160	0.07	-0.06	0.06	-76.79	0.22
Ever pregnant or made someone pregnant	156	0.09	0.00	0.05	3.27	0.17
Fought, hurt, or used weapon in last 6 months	160	0.42	0.02	0.09	5.88	0.31
Total number of risk behaviors	141	0.87	-0.22	0.24	-25.29	0.33

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[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

[b] Core GPA calculated as the average of English, Math, Social Studies, and Science grades. Three (3) sites did not report either baseline or follow-up data and were therefore excluded from the analysis.

[c] Four (4) programs were excluded from the analysis of days absent due to incomplete reporting.

[d] Five (5) programs were excluded from the analysis of any suspensions due to incomplete reporting.

APPENDIX G

FOLLOW-UP SUBGROUP IMPACT TABLES

Exhibit G.1
PARTICIPANT IMPACTS AT FOLLOW-UP
EDUCATIONALLY AT-RISK STUDENTS
DIFFERENCE-IN-DIFFERENCE MODEL

Characteristic	N	Educationally At-Risk (N=351) Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Not Educationally At-Risk (N=712) Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
Civic/Social Attitudes and Behavior								
Personal and social responsibility (Search Institute scale: range 5-25):								
Social welfare subscale	749	17.19	-0.29	0.53	18.92	0.56	0.38	ns
Community involvement	749	17.28	-0.31	0.57	18.64	0.35	0.40	ns
Search-Total Personal/Social Responsibility (range 10-50)	749	34.47	-0.59	0.95	37.57	0.91	0.68	ns
Cultural Diversity (range 1-4)	750	3.28	0.05	0.06	3.50	-0.03	0.04	ns
Psychosocial maturity (Greenberger scale: range 1-4):								
Communication Skills subscale	749	2.68	0.01	0.07	2.99	0.04	0.05	ns
Work Orientation subscale	749	2.60	-0.02	0.07	2.86	-0.01	0.05	ns
Service Leadership (Sieber scale: range 1-4)	750	2.76	0.09	0.07	2.83	0.07	0.05	ns
Total Civic Attitudes	749	98.25	0.92	1.68	104.43	1.32	1.20	ns
Volunteer Behavior								
Volunteered for a community organization or got involved in other community service in last 6 months	741	0.78	0.08	0.07	0.75	-0.01	0.05	ns
Average hours doing volunteer work or community service in last 6 months	677	36.44	13.17	27.98	40.70	25.82	19.29	ns
Educational Impacts (Connell scale: range 1-4):								
Educational competence	723	2.95	0.02	0.05	3.10	-0.01	0.03	ns
School engagement	750	3.24	0.11	0.07	3.22	0.06	0.05	ns

[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

Exhibit G.1 (Continued)
PARTICIPANT IMPACTS AT FOLLOW-UP
EDUCATIONALLY AT-RISK STUDENTS
DIFFERENCE-IN-DIFFERENCE MODEL

		Educationally At-Risk (N=351)			Not Educationally At-Risk (N=712)			
Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
English grade	560	2.13	-0.07	0.18	2.36	-0.57 ***	0.15	**
Math grade	531	2.01	0.47 **	0.18	2.42	-0.12	0.16	***
Social studies grade	521	2.06	0.13	0.17	2.49	-0.06	0.15	ns
Science grade	505	2.09	0.56 ***	0.19	2.56	0.06	0.17	**
Overall/School GPA	465	1.83	0.20	0.16	2.50	-0.11	0.10	*
Core GPA[b]	589	2.06	0.24 *	0.13	2.49	-0.18 *	0.11	***
Fail 1 or more courses	592	0.27	-0.02	0.07	0.14	0.05	0.06	ns
Days absent[c]	490	14.04	0.75	1.32	7.86	0.09	1.07	ns
Suspended last year[d]	404	0.23	-0.05	0.07	0.18	0.02	0.05	ns
Graduate 4-year college or beyond	741	0.63	0.05	0.06	0.83	0.06	0.04	ns
Homework: 3 hours or more per week	725	0.48	0.05	0.08	0.78	0.05	0.05	ns
Involvement with Risk Behavior								
Consumed any alcohol in last 30 days	617	0.34	-0.19 **	0.09	0.39	-0.06	0.06	ns
Used illegal drugs in last 30 days	586	0.16	-0.04	0.07	0.13	-0.03	0.05	ns
Arrested in last 6 months	618	0.20	-0.08	0.05	0.08	0.01	0.04	ns
Ever pregnant or made someone pregnant	610	0.10	0.03	0.05	0.07	0.02	0.04	ns
Fought, hurt, or used weapon in last 6 months	617	0.45	-0.08	0.07	0.24	0.02	0.05	ns
Total number of risk behaviors	578	1.26	-0.36 **	0.17	0.92	-0.01	0.12	*

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[b] Core GPA calculated as the average of English, Math, Social Studies, and Science grades. Three (3) sites did not report either baseline or follow-up data and were therefore excluded from the analysis.

[c] Four (4) programs were excluded from the analysis of days absent due to incomplete reporting.

[d] Five (5) programs were excluded from the analysis of any suspensions due to incomplete reporting.

Exhibit G.2

PARTICIPANT IMPACTS AT FOLLOW-UP
ECONOMICALLY DISADVANTAGED
DIFFERENCE-IN-DIFFERENCE MODEL

		Economically Disadvantaged (N=348)			Not Economically Disadvantaged (N=577)			
Characteristic	N	Control Group Mean (1)	Impact [a] (2)	Standard Error of Impact (3)	Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
Civic/Social Attitudes and Behavior								
Personal and social responsibility (Search Institute scale: range 5-25):								
Social welfare subscale	657	17.37	-0.18	0.59	18.78	0.30	0.43	ns
Community involvement	657	17.48	-0.42	0.61	18.78	0.26	0.45	ns
Search-Total Personal/Social Responsibility (range 10-50)	657	34.85	-0.60	1.04	37.56	0.56	0.76	ns
Cultural Diversity (range 1-4)	658	3.32	-0.10	0.07	3.48	-0.03	0.05	ns
Psychosocial maturity (Greenberger scale: range 1-4):								
Communication Skills subscale	657	2.82	0.01	0.07	2.93	0.03	0.05	ns
Work Orientation subscale	657	2.67	0.00	0.07	2.86	-0.03	0.05	ns
Service Leadership (Sieber scale: range 1-4)	658	2.82	0.08	0.08	2.84	0.06	0.06	ns
Total Civic Attitudes	657	99.76	-0.91	1.83	104.16	0.82	1.34	ns
Volunteer Behavior								
Volunteered for a community organization or got involved in other community service in last 6 months	649	0.77	0.02	0.07	0.76	-0.00	0.05	ns
Average hours doing volunteer work or community service in last 6 months	595	56.90	28.41	33.22	35.16	21.55	22.82	ns
Educational Impacts (Connell scale: range 1-4):								
Educational competence	632	3.02	0.08	0.05	3.07	-0.01	0.04	ns
School engagement	658	3.26	-0.01	0.07	3.23	0.14 ***	0.05	*

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[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

Exhibit G.2 (Continued)
PARTICIPANT IMPACTS AT FOLLOW-UP
ECONOMICALLY DISADVANTAGED
DIFFERENCE-IN-DIFFERENCE MODEL

Characteristic	N	Economically Disadvantaged (N=348): Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Not Economically Disadvantaged (N=577): Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
English grade	494	2.29	-0.27	0.19	2.24	-0.40 **	0.16	ns
Math grade	473	2.23	0.30	0.20	2.29	0.07	0.18	ns
Social studies grade	465	2.18	0.08	0.18	2.39	-0.07	0.16	ns
Science grade	442	2.28	0.39 *	0.20	2.45	0.29	0.18	ns
Overall/School GPA	403	2.01	0.07	0.15	2.42	-0.08	0.12	ns
Core GPA[b]	521	2.25	0.06	0.14	2.38	-0.04	0.12	ns
Fail 1 or more courses	523	0.20	-0.04	0.07	0.21	0.06	0.06	ns
Days absent[c]	436	17.11	2.20	1.43	7.15	-0.95	1.14	*
Suspended last year[d]	343	0.27	0.03	0.07	0.10	0.00	0.05	ns
Graduate 4-year college or beyond	649	0.68	0.05	0.07	0.80	0.05	0.05	ns
Homework: 3 hours or more per week	636	0.53	0.06	0.08	0.71	0.02	0.06	ns
Involvement with Risk Behavior								
Consumed any alcohol in last 30 days	562	0.29	-0.21 **	0.09	0.37	-0.08	0.07	ns
Used illegal drugs in last 30 days	534	0.10	-0.09	0.08	0.11	-0.03	0.05	ns
Arrested in last 6 months	563	0.17	0.02	0.06	0.11	-0.04	0.04	ns
Ever pregnant or made someone pregnant	555	0.09	0.05	0.06	0.08	-0.01	0.04	ns
Fought, hurt, or used weapon in last 6 months	562	0.43	0.12	0.08	0.28	-0.12 **	0.06	***
Total number of risk behaviors	526	1.09	-0.06	0.19	0.96	-0.27 **	0.13	ns

[b] Core GPA calculated as the average of English, Math, Social Studies, and Science grades. Three (3) sites did not report either baseline or follow-up data and were therefore excluded from the analysis.

[c] Four (4) programs were excluded from the analysis of days absent due to incomplete reporting.

[d] Five (5) programs were excluded from the analysis of any suspensions due to incomplete reporting.

Exhibit G.3
PARTICIPANT IMPACTS AT FOLLOW-UP
FEMALE AND MALE STUDENTS
DIFFERENCE-IN-DIFFERENCE MODEL

		Female (N=595)			Male (N=467)			
Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
Civic/Social Attitudes and Behavior								
Personal and social responsibility (Search Institute scale: range 5-25):								
Social welfare subscale	747	19.25	0.36	0.40	17.22	0.12	0.47	ns
Community involvement	747	18.61	0.41	0.43	17.64	-0.2[illegible]	0.50	ns
Search-Total Personal/Social Responsibility (range 10-50)	747	37.86	0.78	0.73	34.86	-0.14	0.84	ns
Cultural Diversity (range 1-4)	748	3.55	-0.02	0.05	3.28	0.02	0.05	ns
Psychosocial maturity (Greenberger scale: range 1-4):								
Communication Skills subscale	747	3.00	0.03	0.05	2.74	0.04	0.06	ns
Work Orientation subscale	747	2.80	-0.06	0.05	2.74	0.06	0.06	ns
Service Leadership (Sieber scale: range 1-4)	748	2.87	0.08	0.05	2.73	0.07	0.06	ns
Total Civic Attitudes	747	105.55	1.36	1.28	98.35	0.87	1.48	ns
Volunteer Behavior								
Volunteered for a community organization or got involved in other community service in last 6 months	739	0.83	0.03	0.05	0.67	0.02	0.06	ns
Average hours doing volunteer work or community service in last 6 months	675	42.04	25.53	20.84	36.20	17.66	24.33	ns
Educational Impacts (Connell scale: range 1-4):								
Educational competence	722	3.09	0.03	0.04	3.00	-0.05	0.04	ns
School engagement	748	3.27	0.07	0.05	3.18	0.07	0.06	ns

[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

Exhibit G.3 (Continued)
PARTICIPANT IMPACTS AT FOLLOW-UP
FEMALE AND MALE STUDENTS
DIFFERENCE-IN-DIFFERENCE MODEL

Characteristic	N	Female (N=595) Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Male (N=467) Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
English grade	561	2.36	-0.41 ***	0.15	2.14	-0.35 **	0.17	ns
Math grade	531	2.27	0.12	0.16	2.21	0.12	0.18	ns
Social studies grade	523	2.37	0.08	0.15	2.23	-0.06	0.17	ns
Science grade	506	2.41	0.21	0.17	2.27	0.30	0.18	ns
Overall/School GPA	466	2.46	0.07	0.11	2.03	-0.16	0.13	ns
Core GPA[b]	590	2.41	-0.02	0.11	2.20	-0.04	0.13	ns
Fail 1 or more courses	593	0.20	0.02	0.06	0.19	0.04	0.06	ns
Days absent[c]	491	11.12	0.94	1.13	10.10	-0.36	1.22	ns
Suspended last year[d]	404	0.18	-0.02	0.06	0.22	0.01	0.06	ns
Graduate 4-year college or beyond	739	0.78	0.06	0.05	0.73	0.05	0.06	ns
Homework: 3 hours or more per week	723	0.77	0.03	0.06	0.56	0.07	0.07	ns
Involvement with Risk Behavior								
Consumed any alcohol in last 30 days	615	0.38	-0.12 *	0.07	0.37	-0.06	0.08	ns
Used illegal drugs in last 30 days	584	0.14	-0.09	0.05	0.15	0.05	0.06	*
Arrested in last 6 months	616	0.07	-0.03	0.04	0.18	0.02	0.05	ns
Ever pregnant or made someone pregnant	608	0.08	-0.00	0.04	0.09	0.06	0.04	ns
Fought, hurt, or used weapon in last 6 months	615	0.26	-0.08	0.06	0.36	0.06	0.06	*
Total number of risk behaviors	576	0.94	-0.30 **	0.13	1.15	0.14	0.15	**

[b] Core GPA calculated as the average of English, Math, Social Studies, and Science grades. Three (3) sites did not report either baseline or follow-up data and were therefore excluded from the analysis.

[c] Four (4) programs were excluded from the analysis of days absent due to incomplete reporting.

[d] Five (5) programs were excluded from the analysis of any suspensions due to incomplete reporting.

Exhibit G.4
PARTICIPANT IMPACTS AT FOLLOW-UP
WHITE AND NON-WHITE STUDENTS
DIFFERENCE-IN-DIFFERENCE MODEL

		White (N=593)			Non-White (N=461)			
Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
Civic/Social Attitudes and Behavior								
Personal and social responsibility (Search Institute scale: range 5-25):								
Social welfare subscale	743	19.03	0.52	0.39	17.38	0.02	0.48	ns
Community involvement	743	18.81	0.51	0.41	17.30	-0.43	0.51	ns
Search-Total Personal/Social Responsibility (range 10-50)	743	37.85	1.03	0.69	34.68	-0.41	0.85	ns
Cultural Diversity (range 1-4)	744	3.49	0.01	0.04	3.35	-0.01	0.06	ns
Psychosocial maturity (Greenberger scale: range 1-4):								
Communication Skills subscale	743	2.93	0.03	0.05	2.82	0.03	0.06	ns
Work Orientation subscale	743	2.84	-0.02	0.05	2.68	0.00	0.06	ns
Service Leadership (Sieber scale: range 1-4)	744	2.85	0.10 **	0.05	2.75	0.05	0.06	ns
Total Civic Attitudes	743	104.70	2.13 *	1.24	99.05	-0.03	1.53	ns
Volunteer Behavior								
Volunteered for a community organization or got involved in other community service in last 6 months	735	0.81	0.06	0.05	0.67	-0.06	0.06	*
Average hours doing volunteer work or community service in last 6 months	671	30.55	12.46	19.86	55.06	44.08 *	26.01	ns
Educational Impacts (Connell scale: range 1-4):								
Educational competence	720	3.05	-0.01	0.04	3.05	-0.00	0.04	ns
School engagement	744	3.23	0.10 *	0.05	3.23	0.02	0.06	ns

[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

Exhibit G.4 (Continued)
PARTICIPANT IMPACTS AT FOLLOW-UP
WHITE AND NON-WHITE STUDENTS
DIFFERENCE-IN-DIFFERENCE MODEL

		White (N=593)			Non-White (N=461)			
Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
English grade	558	2.31	-0.56 ***	0.16	2.19	-0.18	0.16	*
Math grade	528	2.40	-0.04	0.16	2.08	0.33 *	0.17	*
Social studies grade	520	2.38	-0.20	0.15	2.21	0.26	0.16	**
Science grade	504	2.49	0.16	0.18	2.19	0.37 **	0.18	ns
Overall/School GPA	464	2.43	-0.15	0.11	2.05	0.13	0.13	*
Core GPA[b]	587	2.42	-0.15	0.12	2.18	0.12	0.12	*
Fail 1 or more courses	589	0.21	0.08	0.06	0.18	-0.05	0.06	*
Days absent[c]	487	5.73	-0.60	1.09	16.16	1.76	1.24	ns
Suspended last year[d]	402	0.12	-0.05	0.06	0.32	0.06	0.07	ns
Graduate 4-year college or beyond	735	0.80	0.05	0.05	0.71	0.06	0.06	ns
Homework: 3 hours or more per week	719	0.77	0.04	0.06	0.54	0.03	0.07	ns
Involvement with Risk Behavior								
Consumed any alcohol in last 30 days	611	0.36	-0.10	0.07	0.39	-0.11	0.08	ns
Used illegal drugs in last 30 days	580	0.12	-0.03	0.05	0.17	0.02	0.06	ns
Arrested in last 6 months	612	0.08	-0.02	0.04	0.17	0.01	0.05	ns
Ever pregnant or made someone pregnant	604	0.07	-0.00	0.04	0.10	0.07	0.04	ns
Fought, hurt, or used weapon in last 6 months	611	0.28	-0.08	0.06	0.33	0.05	0.07	ns
Total number of risk behaviors	572	0.92	-0.23 *	0.13	1.17	0.08	0.16	ns

[b] Core GPA calculated as the average of English, Math, Social Studies, and Science grades. Three (3) sites did not report either baseline or follow-up data and were therefore excluded from the analysis.

[c] Four (4) programs were excluded from the analysis of days absent due to incomplete reporting.

[d] Five (5) programs were excluded from the analysis of any suspensions due to incomplete reporting.

Exhibit G.5

PARTICIPANT IMPACTS AT FOLLOW-UP
AT-RISK BEHAVIOR AT BASELINE
DIFFERENCE-IN-DIFFERENCE MODEL

		At-Risk Behavior (N=397)			No At-Risk Behavior (N=347)			
Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
Civic/Social Attitudes and Behavior								
Personal and social responsibility (Search Institute scale: range 5-25):								
Social welfare subscale	520	17.33	-0.34	0.54	18.98	1.23 **	0.55	**
Community involvement	520	17.02	-0.12	0.56	18.98	0.58	0.57	ns
Search-Total Personal/Social Responsibility (range 10-50)	520	34.34	-0.46	0.95	37.97	1.82 *	0.98	*
Cultural Diversity (range 1-4)	521	3.34	-0.05	0.06	3.46	-0.03	0.06	ns
Psychosocial maturity (Greenberger scale: range 1-4):								
Communication Skills subscale	520	2.81	-0.00	0.07	2.91	0.08	0.07	ns
Work Orientation subscale	520	2.58	-0.12 *	0.07	2.89	0.09	0.07	**
Service Leadership (Sieber scale: range 1-4)	521	2.69	0.10	0.07	2.92	0.10	0.07	ns
Total Civic Attitudes	520	98.10	-0.02	1.66	105.29	2.47	1.71	ns
Volunteer Behavior								
Volunteered for a community organization or got involved in other community service in last 6 months	512	0.72	-0.05	0.07	0.78	0.03	0.07	ns
Average hours doing volunteer work or community service in last 6 months	462	33.37	27.64	29.04	53.13	11.21	30.07	ns
Educational Impacts (Connell scale: range 1-4):								
Educational competence	502	2.94	-0.05	0.05	3.12	0.04	0.05	ns
School engagement	521	3.06	0.05	0.07	3.37	0.11	0.07	ns

[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

Exhibit G.5 (Continued)
PARTICIPANT IMPACTS AT FOLLOW-UP
AT-RISK BEHAVIOR AT BASELINE
DIFFERENCE-IN-DIFFERENCE MODEL

		At-Risk Behavior (N=397)			No At-Risk Behavior (N=347)			
Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
English grade	480	1.94	-0.36 **	0.17	2.48	-0.35 **	0.17	ns
Math grade	456	1.91	0.33 *	0.18	2.47	0.06	0.18	ns
Social studies grade	442	2.01	0.26	0.17	2.45	-0.27	0.17	**
Science grade	441	2.02	0.28	0.19	2.67	0.38 **	0.19	ns
Overall/School GPA	369	2.00	0.19	0.14	2.42	-0.13	0.13	*
Core GPA[b]	493	1.98	0.06	0.13	2.50	-0.07	0.13	ns
Fail 1 or more courses	494	0.30	-0.03	0.07	0.11	0.08	0.07	ns
Days absent[c]	408	14.38	1.98	1.31	6.94	-2.05	1.28	**
Suspended last year[d]	367	0.20	-0.14 **	0.06	0.17	0.09	0.06	***
Graduate 4-year college or beyond	512	0.61	0.01	0.06	0.78	0.08	0.07	ns
Homework: 3 hours or more per week	499	0.54	0.05	0.08	0.68	0.05	0.08	
Involvement with Risk Behavior								
Consumed any alcohol in last 30 days	504	0.66	-0.10	0.07	0.02	-0.09	0.08	ns
Used illegal drugs in last 30 days	474	0.24	-0.00	0.06	0.01	-0.04	0.06	ns
Arrested in last 6 months	504	0.18	0.00	0.05	0.03	-0.07	0.05	ns
Ever pregnant or made someone pregnant	496	0.11	0.01	0.04	0.00	-0.03	0.04	ns
Fought, hurt, or used weapon in last 6 months	503	0.58	-0.03	0.07	0.01	-0.00	0.07	ns
Total number of risk behaviors	466	1.79	-0.11	0.16	0.08	-0.21	0.16	ns

[b] Core GPA calculated as the average of English, Math, Social Studies, and Science grades. Three (3) sites did not report either baseline or follow-up data and were therefore excluded from the analysis.

[c] Four (4) programs were excluded from the analysis of days absent due to incomplete reporting.

[d] Five (5) programs were excluded from the analysis of any suspensions due to incomplete reporting.

Exhibit G.6
PARTICIPANT IMPACTS AT FOLLOW-UP
VOLUNTEER VS. NON-VOLUNTEER AT BASELINE
DIFFERENCE-IN-DIFFERENCE MODEL

		Volunteered (N=459)			Not Volunteered (N=442)			
Characteristic	N	Control Group Mean (1)	Impact [a] (2)	Standard Error of Impact (3)	Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
Civic/Social Attitudes and Behavior								
Personal and social responsibility (Search Institute scale: range 5-25):								
Social welfare subscale	645	19.88	0.76	0.47	17.46	0.49	0.48	ns
Community involvement	645	20.00	0.81	0.50	17.03	-0.53	0.50	**
Search-Total Personal/Social Responsibility (range 10-50)	645	39.89	1.57 *	0.85	34.49	-0.04	0.86	ns
Cultural Diversity (range 1-4)	646	3.55	0.03	0.05	3.34	-0.00	0.06	ns
Psychosocial maturity (Greenberger scale: range 1-4):								
Communication Skills subscale	645	3.00	0.07	0.06	2.80	-0.00	0.06	ns
Work Orientation subscale	645	2.92	0.01	0.06	2.68	0.03	0.06	ns
Service Leadership (Sieber scale: range 1-4)	646	3.05	0.10 *	0.06	2.62	0.07	0.06	ns
Total Civic Attitudes	645	109.48	2.87 *	1.51	97.58	0.65	1.52	ns
Volunteer Behavior								
Volunteered for a community organization or got involved in other community service in last 6 months	639	0.97	0.03	0.06	0.60	0.01	0.06	ns
Average hours doing volunteer work or community service in last 6 months	592	81.30	20.45	25.34	0.00	23.11	25.62	ns
Educational Impacts (Connell scale: range 1-4):								
Educational competence	625	3.13	0.02	0.04	2.98	-0.03	0.04	ns
School engagement	646	3.39	0.14 **	0.06	3.11	0.04	0.06	ns

[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

Exhibit G.6 (Continued)
PARTICIPANT IMPACTS AT FOLLOW-UP
VOLUNTEER VS. NON-VOLUNTEER AT BASELINE
DIFFERENCE-IN-DIFFERENCE MODEL

		Volunteered (N=459)			Not Volunteered (N=442)			
Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
English grade	472	2.40	-0.25	0.17	2.24	-0.28 *	0.16	ns
Math grade	453	2.37	0.03	0.19	2.24	0.15	0.17	ns
Social studies grade	444	2.55	0.12	0.17	2.26	-0.02	0.16	ns
Science grade	429	2.48	0.22	0.20	2.32	0.25	0.18	ns
Overall/School GPA	385	2.43	-0.09	0.13	2.22	0.02	0.13	ns
Core GPA[b]	497	2.49	0.02	0.13	2.29	0.01	0.12	ns
Fail 1 or more courses	499	0.15	0.03	0.06	0.20	0.04	0.06	ns
Days absent[c]	416	9.80	0.56	1.18	10.78	0.17	1.16	ns
Suspended last year[d]	338	0.15	0.07	0.06	0.26	0.02	0.07	ns
Graduate 4-year college or beyond	638	0.85	0.15 ***	0.05	0.71	0.04	0.06	ns
Homework: 3 hours or more per week	624	0.79	0.01	0.07	0.57	0.04	0.07	ns
Involvement with Risk Behavior								
Consumed any alcohol in last 30 days	534	0.36	-0.06	0.08	0.35	-0.12	0.08	ns
Used illegal drugs in last 30 days	506	0.10	0.07	0.06	0.15	-0.09	0.06	**
Arrested in last 6 months	535	0.08	-0.03	0.05	0.13	-0.01	0.05	ns
Ever pregnant or made someone pregnant	527	0.07	0.02	0.04	0.08	-0.02	0.04	ns
Fought, hurt, or used weapon in last 6 months	534	0.25	-0.02	0.07	0.38	-0.01	0.07	ns
Total number of risk behaviors	498	0.85	-0.03	0.15	1.13	-0.23	0.15	ns

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[b] Core GPA calculated as the average of English, Math, Social Studies, and Science grades. Three (3) sites did not report either baseline or follow-up data and were therefore excluded from the analysis.

[c] Four (4) programs were excluded from the analysis of days absent due to incomplete reporting.

[d] Five (5) programs were excluded from the analysis of any suspensions due to incomplete reporting.

Exhibit G.7

PARTICIPANT IMPACTS AT FOLLOW-UP
STUDENTS IN SERVICE CLASS LAST YEAR
DIFFERENCE-IN-DIFFERENCE MODEL

		In Service Class (N=298)			Not in Service Class (N=746)			
Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
Civic/Social Attitudes and Behavior								
Personal and social responsibility (Search Institute scale: range 5-25):								
Social welfare subscale	735	19.69	0.01	0.46	17.88	0.39	0.35	ns
Community involvement	735	19.80	-0.12	0.49	17.66	0.22	0.37	ns
Search-Total Personal/Social Responsibility (range 10-50)	735	39.49	-0.11	0.82	35.54	0.61	0.63	ns
Cultural Diversity (range 1-4)	736	3.47	0.02	0.05	3.41	-0.01	0.04	ns
Psychosocial maturity (Greenberger scale: range 1-4):								
Communication Skills subscale	735	3.05	0.09	0.06	2.82	0.00	0.04	ns
Work Orientation subscale	735	2.93	-0.00	0.06	2.72	-0.02	0.04	ns
Service Leadership (Sieber scale: range 1-4)	736	3.09	0.14 **	0.06	2.71	0.05	0.05	ns
Total Civic Attitudes	735	108.82	1.48	1.44	100.14	0.98	1.10	ns
Volunteer Behavior								
Volunteered for a community organization or got involved in other community service in last 6 months	727	0.92	0.00	0.06	0.70	0.03	0.04	ns
Average hours doing volunteer work or community service in last 6 months	664	56.01	37.13	23.64	32.09	14.78	18.03	ns
Educational Impacts (Connell scale: range 1-4):								
Educational competence	709	3.11	0.01	0.04	3.03	-0.01	0.03	ns
School engagement	736	3.39	0.05	0.06	3.17	0.08 *	0.04	ns

[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

Exhibit G.7 (Continued)
PARTICIPANT IMPACTS AT FOLLOW-UP
STUDENTS IN SERVICE CLASS LAST YEAR
DIFFERENCE-IN-DIFFERENCE MODEL

		In Service Class (N=298)			Not in Service Class (N=746)			
Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
English grade	550	2.28	-0.51 ***	0.17	2.25	-0.29 **	0.13	ns
Math grade	520	2.27	-0.19	0.18	2.23	0.29 **	0.14	***
Social studies grade	516	2.33	-0.16	0.16	2.29	0.13	0.13	*
Science grade	496	2.27	-0.01	0.19	2.36	0.41 ***	0.15	**
Overall/School GPA	458	2.14	-0.17	0.12	2.29	0.07	0.10	**
Core GPA[b]	579	2.32	-0.19	0.12	2.30	0.09	0.10	**
Fail 1 or more courses	582	0.14	0.09	0.06	0.21	-0.01	0.05	*
Days absent[c]	482	10.43	1.03	1.15	10.66	0.10	0.95	ns
Suspended last year[d]	398	0.11	0.03	0.06	0.22	-0.02	0.05	ns
Graduate 4-year college or beyond	727	0.78	0.02	0.05	0.75	0.07 *	0.04	ns
Homework: 3 hours or more per week	711	0.79	0.03	0.06	0.64	0.05	0.05	ns
Involvement with Risk Behavior								
Consumed any alcohol in last 30 days	604	0.36	-0.01	0.08	0.38	-0.11 *	0.06	ns
Used illegal drugs in last 30 days	574	0.19	0.01	0.06	0.12	-0.04	0.05	ns
Arrested in last 6 months	605	0.14	-0.05	0.05	0.11	0.00	0.03	ns
Ever pregnant or made someone pregnant	597	0.06	0.03	0.05	0.09	0.02	0.03	ns
Fought, hurt, or used weapon in last 6 months	604	0.21	0.05	0.07	0.34	-0.04	0.05	ns
Total number of risk behaviors	566	0.95	0.04	0.16	1.05	-0.15	0.11	ns

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[b] Core GPA calculated as the average of English, Math, Social Studies, and Science grades. Three (3) sites did not report either baseline or follow-up data and were therefore excluded from the analysis.

[c] Four (4) programs were excluded from the analysis of days absent due to incomplete reporting.

[d] Five (5) programs were excluded from the analysis of any suspensions due to incomplete reporting.

Exhibit G.8
PARTICIPANT IMPACTS AT FOLLOW-UP
STUDENTS EVER PARTICIPATED IN SERVICE CLASS
DIFFERENCE-IN-DIFFERENCE MODEL

		Ever in Service Class (N=452)			Not in Service Class (N=594)			
Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
Civic/Social Attitudes and Behavior								
Personal and social responsibility (Search Institute scale: range 5-25):								
Social welfare subscale	737	19.18	0.01	0.43	17.71	0.48	0.39	ns
Community involvement	737	19.22	0.13	0.46	17.45	0.14	0.41	ns
Search-Total Personal/Social Responsibility (range 10-50)	737	38.40	0.15	0.77	35.16	0.63	0.69	ns
Cultural Diversity (range 1-4)	738	3.45	-0.00	0.05	3.41	0.00	0.04	ns
Psychosocial maturity (Greenberger scale: range 1-4):								
Communication Skills subscale	737	3.01	0.08	0.05	2.78	-0.00	0.05	ns
Work Orientation subscale	737	2.88	0.03	0.05	2.69	-0.04	0.05	ns
Service Leadership (Sieber scale: range 1-4)	738	2.98	0.09	0.06	2.67	0.06	0.05	ns
Total Civic Attitudes	737	106.26	0.98	1.35	99.44	1.27	1.22	ns
Volunteer Behavior								
Volunteered for a community organization or got involved in other community service in last 6 months	729	0.88	0.01	0.05	0.67	0.03	0.05	ns
Average hours doing volunteer work or community service in last 6 months	667	59.88	36.75 *	22.28	23.61	11.67	19.96	ns
Educational Impacts (Connell scale: range 1-4):								
Educational competence	711	3.09	-0.04	0.04	3.02	0.02	0.04	ns
School engagement	738	3.33	0.08	0.05	3.15	0.07	0.05	ns

[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

Exhibit G.8 (Continued)
PARTICIPANT IMPACTS AT FOLLOW-UP
STUDENTS EVER PARTICIPATED IN SERVICE CLASS
DIFFERENCE-IN-DIFFERENCE MODEL

Characteristic	N	Ever in Service Class (N=452) Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Not in Service Class (N=594) Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
English grade	551	2.27	-0.44 ***	0.16	2.25	-0.29 **	0.14	ns
Math grade	521	2.30	-0.15	0.17	2.21	0.37 **	0.15	***
Social studies grade	517	2.38	0.03	0.15	2.25	0.04	0.14	ns
Science grade	497	2.14	0.05	0.18	2.48	0.45 ***	0.16	**
Overall/School GPA	458	2.16	-0.19 *	0.12	2.31	0.14	0.11	**
Core GPA[b]	580	2.31	-0.12	0.12	2.31	0.10	0.11	*
Fail 1 or more courses	583	0.18	0.06	0.06	0.20	-0.02	0.06	ns
Days absent[c]	483	10.02	0.23	1.08	11.05	0.57	1.05	ns
Suspended last year[d]	398	0.08	0.02	0.06	0.26	-0.02	0.06	ns
Graduate 4-year college or beyond	729	0.78	0.01	0.05	0.75	0.09 *	0.04	ns
Homework: 3 hours or more per week	713	0.76	0.01	0.06	0.61	0.07	0.05	ns
Involvement with Risk Behavior								
Consumed any alcohol in last 30 days	606	0.42	-0.05	0.07	0.34	-0.11 *	0.06	ns
Used illegal drugs in last 30 days	576	0.19	0.02	0.06	0.10	-0.06	0.05	ns
Arrested in last 6 months	607	0.11	-0.03	0.04	0.13	-0.00	0.04	ns
Ever pregnant or made someone pregnant	599	0.07	0.03	0.04	0.09	0.02	0.04	ns
Fought, hurt, or used weapon in last 6 months	606	0.21	0.03	0.06	0.38	-0.04	0.05	ns
Total number of risk behaviors	568	1.00	0.01	0.15	1.06	-0.17	0.12	ns

[b] Core GPA calculated as the average of English, Math, Social Studies, and Science grades. Three (3) sites did not report either baseline or follow-up data and were therefore excluded from the analysis.

[c] Four (4) programs were excluded from the analysis of days absent due to incomplete reporting.

[d] Five (5) programs were excluded from the analysis of any suspensions due to incomplete reporting.

Exhibit G.9
PARTICIPANT IMPACTS AT FOLLOW-UP
MIDDLE AND HIGH SCHOOL STUDENTS
DIFFERENCE-IN-DIFFERENCE MODEL

		Middle School (N=330)			High School (N=735)			
Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
Civic/Social Attitudes and Behavior								
Personal and social responsibility (Search Institute scale: range 5-25):								
Social welfare subscale	750	17.91	0.47	0.52	18.55	0.18	0.38	ns
Community involvement	750	18.04	0.01	0.55	18.25	0.20	0.40	ns
Search-Total Personal/Social Responsibility (range 10-50)	750	35.95	0.47	0.93	36.80	0.38	0.68	ns
Cultural Diversity (range 1-4)	751	3.31	0.05	0.06	3.49	-0.03	0.04	ns
Psychosocial maturity (Greenberger scale: range 1-4):								
Communication Skills subscale	750	2.74	0.07	0.06	2.96	0.01	0.05	ns
Work Orientation subscale	750	2.71	0.02	0.07	2.81	-0.03	0.05	ns
Service Leadership (Sieber scale: range 1-4)	751	2.84	0.01	0.07	2.79	0.11 **	0.05	ns
Total Civic Attitudes	750	100.84	1.13	1.63	103.07	1.19	1.19	ns
Volunteer Behavior								
Volunteered for a community organization or got involved in other community service in last 6 months	742	0.88	0.08	0.06	0.70	-0.00	0.05	ns
Average hours doing volunteer work or community service in last 6 months	678	55.04	26.05	27.24	32.62	20.51	19.20	ns
Educational Impacts (Connell scale: range 1-4):								
Educational competence	724	2.96	-0.01	0.05	3.10	-0.00	0.03	ns
School engagement	751	3.24	0.05	0.07	3.22	0.08 *	0.05	ns

[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

Exhibit G.9 (Continued)
PARTICIPANT IMPACTS AT FOLLOW-UP
MIDDLE AND HIGH SCHOOL STUDENTS
DIFFERENCE-IN-DIFFERENCE MODEL

		Middle School (N=330)			High School (N=735)			
Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
English grade	562	2.20	-0.45 **	0.18	2.28	-0.33 **	0.15	ns
Math grade	532	2.17	-0.13	0.18	2.28	0.29 *	0.16	*
Social studies grade	523	2.12	-0.20	0.17	2.41	0.15	0.14	*
Science grade	507	2.20	0.04	0.19	2.45	0.42 **	0.17	*
Overall/School GPA	467	1.95	-0.24 *	0.14	2.42	0.09	0.11	**
Core GPA[b]	591	2.16	-0.23 *	0.13	2.39	0.09	0.11	**
Fail 1 or more courses	594	0.27	0.13 *	0.07	0.14	-0.03	0.05	**
Days absent[c]	492	11.21	0.92	1.39	10.25	0.07	1.04	ns
Suspended last year[d]	405	0.08	-0.03	0.07	0.27	0.01	0.06	ns
Graduate 4-year college or beyond	742	0.72	0.06	0.06	0.78	0.06	0.04	ns
Homework: 3 hours or more per week	726	0.59	0.05	0.07	0.72	0.05	0.05	ns
Involvement with Risk Behavior								
Consumed any alcohol in last 30 days	618	0.25	-0.13	0.10	0.41	-0.08	0.06	ns
Used illegal drugs in last 30 days	587	0.06	-0.07	0.08	0.17	-0.02	0.05	ns
Arrested in last 6 months	619	0.07	-0.09	0.06	0.14	0.01	0.04	ns
Ever pregnant or made someone pregnant	611	0.09	0.03	0.06	0.08	0.02	0.03	ns
Fought, hurt, or used weapon in last 6 months	618	0.42	0.05	0.08	0.27	-0.04	0.05	ns
Total number of risk behaviors	579	0.87	-0.17	0.20	1.09	-0.10	0.12	ns

[b] Core GPA calculated as the average of English, Math, Social Studies, and Science grades. Three (3) sites did not report either baseline or follow-up data and were therefore excluded from the analysis.

[c] Four (4) programs were excluded from the analysis of days absent due to incomplete reporting.

[d] Five (5) programs were excluded from the analysis of any suspensions due to incomplete reporting.

Exhibit G.10

PARTICIPANT IMPACTS AT FOLLOW-UP
EDUCATIONALLY AT-RISK STUDENTS
ANALYSIS OF COVARIANCE MODEL

		Educationally At-Risk (N=351)			Not Educationally At-Risk (N=712)			
Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
Civic/Social Attitudes and Behavior								
Personal and social responsibility (Search Institute scale: range 5-25):								
Social welfare subscale	749	17.19	0.51	0.46	18.92	0.83 **	0.33	ns
Community involvement	749	17.28	0.66	0.48	18.64	1.03 ***	0.34	ns
Search-Total Personal/Social Responsibility (range 10-50)	749	34.47	1.09	0.83	37.57	1.80 ***	0.59	ns
Cultural Diversity (range 1-4)	750	3.28	0.13 **	0.05	3.50	0.04	0.04	ns
Psychosocial maturity (Greenberger scale: range 1-4):								ns
Communication Skills subscale	749	2.68	0.04	0.06	2.99	0.07 *	0.04	ns
Work Orientation subscale	749	2.60	0.06	0.06	2.86	0.04	0.04	ns
Service Leadership (Sieber scale: range 1-4)	750	2.76	0.19 ***	0.06	2.83	0.19 ***	0.04	ns
Total Civic Attitudes	749	98.25	3.85 **	1.53	104.43	3.76 ***	1.09	ns
Volunteer Behavior								
Volunteered for a community organization or got involved in other community service in last 6 months	741	0.78	0.15 ***	0.05	0.75	0.14 ***	0.04	ns
Average hours doing volunteer work or community service in last 6 months	677	36.44	27.98	19.65	40.70	40.38 ***	13.56	ns
Educational Impacts (Connell scale: range 1-4):								
Educational competence	723	2.95	0.07 *	0.04	3.10	0.04	0.03	ns
School engagement	750	3.24	0.12 **	0.06	3.22	0.12 ***	0.04	ns

[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

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Exhibit G.10 (Continued)
PARTICIPANT IMPACTS AT FOLLOW-UP
EDUCATIONALLY AT-RISK STUDENTS
ANALYSIS OF COVARIANCE MODEL

		Educationally At-Risk (N=351)			Not Educationally At-Risk (N=712)			
Characteristic	N	Control Group Mean (1)	Impact [a] (2)	Standard Error of Impact (3)	Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
English grade	560	2.13	0.17	0.15	2.36	-0.17	0.13	*
Math grade	531	2.01	0.60 ***	0.16	2.42	0.08	0.14	***
Social studies grade	521	2.06	0.25	0.15	2.49	0.18	0.13	ns
Science grade	505	2.09	0.72 ***	0.16	2.56	0.22	0.14	**
Overall/School GPA	465	1.83	0.37 **	0.14	2.50	0.06	0.09	*
Core GPA[b]	589	2.06	0.38 ***	0.12	2.49	0.00	0.10	***
Fail 1 or more courses	592	0.27	-0.07	0.06	0.14	0.00	0.05	ns
Days absent[c]	490	14.04	-0.94	1.03	7.86	-0.83	0.83	ns
Suspended last year[d]	404	0.23	-0.12 **	0.05	0.18	-0.03	0.04	ns
Graduate 4-year college or beyond	741	0.63	0.14 ***	0.05	0.83	0.13 ***	0.04	ns
Homework: 3 hours or more per week	725	0.48	0.13 **	0.06	0.78	0.07	0.04	ns
Involvement with Risk Behavior								
Consumed any alcohol in last 30 days	617	0.34	-0.14 *	0.07	0.39	-0.04	0.05	ns
Used illegal drugs in last 30 days	586	0.16	-0.00	0.06	0.13	0.01	0.04	ns
Arrested in last 6 months	618	0.20	-0.06 *	0.03	0.08	0.00	0.02	ns
Ever pregnant or made someone pregnant	610	0.10	0.01	0.04	0.07	-0.03	0.03	ns
Fought, hurt, or used weapon in last 6 months	617	0.45	-0.14 **	0.06	0.24	0.01	0.04	**
Total number of risk behaviors	578	1.26	-0.37 **	0.16	0.92	-0.04	0.11	*

[b] Core GPA calculated as the average of English, Math, Social Studies, and Science grades. Three (3) sites did not report either baseline or follow-up data and were therefore excluded from the analysis.

[c] Four (4) programs were excluded from the analysis of days absent due to incomplete reporting.

[d] Five (5) programs were excluded from the analysis of any suspensions due to incomplete reporting.

Exhibit G.11
PARTICIPANT IMPACTS AT FOLLOW-UP
ECONONOMICALLY DISADVANTAGED STUDENTS
ANALYSIS OF COVARIANCE MODEL

		Economically Disadvantaged (N=348)			Not Economically Disadvantaged (N=577)			
Characteristic	**N**	**Control Group Mean (1)**	**Impact[a] (2)**	**Standard Error of Impact (3)**	**Control Group Mean (4)**	**Impact[a] (5)**	**Standard Error of Impact (6)**	**Test of Difference in Impacts[a] (7)**
Civic/Social Attitudes and Behavior								
Personal and social responsibility (Search Institute scale: range 5-25):								
Social welfare subscale	657	17.37	0.32	0.50	18.78	0.95 **	0.37	ns
Community involvement	657	17.48	0.34	0.51	18.78	1.17 ***	0.38	ns
Search-Total Personal/Social Responsibility (range 10-50)	657	34.85	0.61	0.90	37.56	2.06 ***	0.66	ns
Cultural Diversity (range 1-4)	658	3.32	-0.04	0.06	3.48	0.07	0.04	ns
Psychosocial maturity (Greenberger scale: range 1-4):								
Communication Skills subscale	657	2.82	0.01	0.06	2.93	0.08 *	0.05	ns
Work Orientation subscale	657	2.67	0.05	0.06	2.86	0.03	0.05	ns
Service Leadership (Sieber scale: range 1-4)	658	2.82	0.14 **	0.07	2.84	0.24 ***	0.05	ns
Total Civic Attitudes	657	99.76	1.16	1.66	104.16	4.50 ***	1.24	*
Volunteer Behavior								
Volunteered for a community organization or got involved in other community service in last 6 months	649	0.77	0.10 *	0.06	0.76	0.14 ***	0.04	ns
Average hours doing volunteer work or community service in last 6 months	595	56.90	32.60	23.45	35.16	36.61 **	16.12	ns
Educational Impacts (Connell scale: range 1-4):								
Educational competence	632	3.02	0.10 **	0.05	3.07	0.05	0.03	ns
School engagement	658	3.26	0.02	0.06	3.23	0.18 ***	0.05	**

[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

Exhibit G.11 (Continued)
PARTICIPANT IMPACTS AT FOLLOW-UP
ECONONOMICALLY DISADVANTAGED STUDENTS
ANALYSIS OF COVARIANCE MODEL

		Economically Disadvantaged (N=348)			Not Economically Disadvantaged (N=577)			
Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
English grade	494	2.29	-0.12	0.16	2.24	0.15	0.15	ns
Math grade	473	2.23	0.34 *	0.17	2.29	0.41 ***	0.15	ns
Social studies grade	465	2.18	0.14	0.16	2.39	0.25 *	0.14	ns
Science grade	442	2.28	0.33 **	0.17	2.45	0.62 ***	0.15	ns
Overall/School GPA	403	2.01	0.05	0.13	2.42	0.20 *	0.11	ns
Core GPA[b]	521	2.25	0.11	0.13	2.38	0.23 **	0.11	ns
Fail 1 or more courses	523	0.20	-0.06	0.06	0.21	-0.04	0.05	ns
Days absent[c]	436	17.11	-0.27	1.11	7.15	-1.86 **	0.88	ns
Suspended last year[d]	343	0.27	-0.07	0.06	0.10	-0.05	0.04	ns
Graduate 4-year college or beyond	649	0.68	0.13 **	0.06	0.80	0.14 ***	0.04	ns
Homework: 3 hours or more per week	636	0.53	0.10	0.07	0.71	0.13 ***	0.05	ns
Involvement with Risk Behavior								
Consumed any alcohol in last 30 days	562	0.29	-0.10	0.08	0.37	-0.09	0.06	ns
Used illegal drugs in last 30 days	534	0.10	-0.02	0.06	0.11	-0.01	0.04	ns
Arrested in last 6 months	563	0.17	0.00	0.04	0.11	-0.05 *	0.03	ns
Ever pregnant or made someone pregnant	555	0.09	0.02	0.04	0.08	-0.06 **	0.03	*
Fought, hurt, or used weapon in last 6 months	562	0.43	0.02	0.06	0.28	-0.15 ***	0.04	**
Total number of risk behaviors	526	1.09	-0.09	0.17	0.96	-0.33 ***	0.12	ns

[b] Core GPA calculated as the average of English, Math, Social Studies, and Science grades. Three (3) sites did not report either baseline or follow-up data and were therefore excluded from the analysis.

[c] Four (4) programs were excluded from the analysis of days absent due to incomplete reporting.

[d] Five (5) programs were excluded from the analysis of any suspensions due to incomplete reporting.

Exhibit G.12
PARTICIPANT IMPACTS AT FOLLOW-UP
FEMALE AND MALE STUDENTS
ANALYSIS OF COVARIANCE MODEL

		Female (N=595)			Male (N=467)			
Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
Civic/Social Attitudes and Behavior								
Personal and social responsibility (Search Institute scale: range 5-25):								
Social welfare subscale	747	19.25	0.65 *	0.35	17.22	0.79 *	0.41	ns
Community involvement	747	18.61	1.14 ***	0.36	17.64	0.61	0.42	ns
Search-Total Personal/Social Responsibility (range 10-50)	747	37.86	1.73 ***	0.63	34.86	1.33 *	0.73	ns
Cultural Diversity (range 1-4)	748	3.55	0.05	0.04	3.28	0.09 *	0.05	ns
Psychosocial maturity (Greenberger scale: range 1-4):								
Communication Skills subscale	747	3.00	0.04	0.04	2.74	0.09 *	0.05	ns
Work Orientation subscale	747	2.80	0.02	0.04	2.74	0.07	0.05	ns
Service Leadership (Sieber scale: range 1-4)	748	2.87	0.20 ***	0.05	2.73	0.17 ***	0.05	ns
Total Civic Attitudes	747	105.55	3.94 ***	1.17	98.35	3.49 ***	1.35	ns
Volunteer Behavior								
Volunteered for a community organization or got involved in other community service in last 6 months	739	0.83	0.12 ***	0.04	0.67	0.16 ***	0.05	ns
Average hours doing volunteer work or community service in last 6 months	675	42.04	42.63 ***	14.64	36.20	28.39 *	17.08	ns
Educational Impacts (Connell scale: range 1-4):								
Educational competence	722	3.09	0.08 **	0.03	3.00	0.00	0.04	ns
School engagement	748	3.27	0.12 ***	0.04	3.18	0.11 **	0.05	ns

[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

Exhibit G.12 (Continued)
PARTICIPANT IMPACTS AT FOLLOW-UP
FEMALE AND MALE STUDENTS
ANALYSIS OF COVARIANCE MODEL

		Female (N=595)			Male (N=467)			
Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
English grade	561	2.36	-0.04	0.13	2.14	-0.05	0.14	ns
Math grade	531	2.27	0.33 **	0.14	2.21	0.25	0.15	ns
Social studies grade	523	2.37	0.31 **	0.13	2.23	0.07	0.15	ns
Science grade	506	2.41	0.41 ***	0.14	2.27	0.43 ***	0.15	ns
Overall/School GPA	466	2.46	0.23 **	0.10	2.03	0.02	0.12	ns
Core GPA[b]	590	2.41	0.16	0.10	2.20	0.12	0.11	ns
Fail 1 or more courses	593	0.20	-0.06	0.05	0.19	0.02	0.05	ns
Days absent[c]	491	11.12	-0.72	0.88	10.10	-1.06	0.94	ns
Suspended last year[d]	404	0.18	-0.06	0.04	0.22	-0.06	0.04	ns
Graduate 4-year college or beyond	739	0.78	0.15 ***	0.04	0.73	0.11 **	0.05	ns
Homework: 3 hours or more per week	723	0.77	0.06	0.05	0.56	0.12 **	0.05	ns
Involvement with Risk Behavior								
Consumed any alcohol in last 30 days	615	0.38	-0.10 *	0.06	0.37	-0.04	0.06	ns
Used illegal drugs in last 30 days	584	0.14	-0.01	0.04	0.15	0.02	0.05	ns
Arrested in last 6 months	616	0.07	-0.02	0.03	0.18	-0.00	0.03	ns
Ever pregnant or made someone pregnant	608	0.08	-0.03	0.03	0.09	0.01	0.03	ns
Fought, hurt, or used weapon in last 6 months	615	0.26	-0.08 *	0.05	0.36	0.00	0.05	ns
Total number of risk behaviors	576	0.94	-0.25 **	0.12	1.15	0.01	0.14	ns

[b] Core GPA calculated as the average of English, Math, Social Studies, and Science grades. Three (3) sites did not report either baseline or follow-up data and were therefore excluded from the analysis.

[c] Four (4) programs were excluded from the analysis of days absent due to incomplete reporting.

[d] Five (5) programs were excluded from the analysis of any suspensions due to incomplete reporting.

Exhibit G.13
PARTICIPANT IMPACTS AT FOLLOW-UP
WHITE AND NON-WHITE STUDENTS
ANALYSIS OF COVARIANCE MODEL

		White (N=593)			Non-White (N=461)			
Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
Civic/Social Attitudes and Behavior								
Personal and social responsibility (Search Institute scale: range 5-25):								
Social welfare subscale	743	19.03	0.89 ***	0.33	17.38	0.57	0.41	ns
Community involvement	743	18.81	1.13 ***	0.35	17.30	0.53	0.43	ns
Search-Total Personal/Social Responsibility (range 10-50)	743	37.85	1.96 ***	0.60	34.68	1.01	0.75	ns
Cultural Diversity (range 1-4)	744	3.49	0.08 **	0.04	3.35	0.05	0.05	ns
Psychosocial maturity (Greenberger scale: range 1-4):								
Communication Skills subscale	743	2.93	0.07	0.04	2.82	0.05	0.05	ns
Work Orientation subscale	743	2.84	0.03	0.04	2.68	0.06	0.05	ns
Service Leadership (Sieber scale: range 1-4)	744	2.85	0.24 ***	0.05	2.75	0.13 **	0.06	*
Total Civic Attitudes	743	104.70	4.82 ***	1.13	99.05	2.35 *	1.39	ns
Volunteer Behavior								
Volunteered for a community organization or got involved in other community service in last 6 months	735	0.81	0.16 ***	0.04	0.67	0.10 **	0.05	ns
Average hours doing volunteer work or community service in last 6 months	671	30.55	32.13 **	14.04	55.06	49.91 ***	18.36	ns
Educational Impacts (Connell scale: range 1-4):								
Educational competence	720	3.05	0.05	0.03	3.05	0.03	0.04	ns
School engagement	744	3.23	0.13 ***	0.04	3.23	0.07	0.05	ns

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[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

Exhibit G.13 (Continued)
PARTICIPANT IMPACTS AT FOLLOW-UP
WHITE AND NON-WHITE STUDENTS
ANALYSIS OF COVARIANCE MODEL

		White (N=593)			Non-White (N=461)			
Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
English grade	558	2.31	-0.08	0.14	2.19	-0.03	0.14	ns
Math grade	528	2.40	0.25 *	0.15	2.08	0.36 **	0.15	ns
Social studies grade	520	2.38	0.11	0.13	2.21	0.28 **	0.14	ns
Science grade	504	2.49	0.46 ***	0.14	2.19	0.38 **	0.15	ns
Overall/School GPA	464	2.43	0.11	0.10	2.05	0.17	0.11	ns
Core GPA[b]	587	2.42	0.12	0.11	2.18	0.18	0.11	ns
Fail 1 or more courses	589	0.21	0.01	0.05	0.18	-0.07	0.05	ns
Days absent[c]	487	5.73	-0.72	0.85	16.16	-1.02	0.98	ns
Suspended last year[d]	402	0.12	-0.06 *	0.04	0.32	-0.05	0.04	ns
Graduate 4-year college or beyond	735	0.80	0.11 ***	0.04	0.71	0.15 ***	0.05	ns
Homework: 3 hours or more per week	719	0.77	0.08 *	0.04	0.54	0.08	0.06	ns
Involvement with Risk Behavior								ns
Consumed any alcohol in last 30 days	611	0.36	-0.09	0.06	0.39	-0.08	0.07	ns
Used illegal drugs in last 30 days	580	0.12	-0.00	0.04	0.17	0.04	0.05	ns
Arrested in last 6 months	612	0.08	-0.02	0.03	0.17	-0.01	0.03	ns
Ever pregnant or made someone pregnant	604	0.07	-0.04	0.03	0.10	0.01	0.03	ns
Fought, hurt, or used weapon in last 6 months	611	0.28	-0.09 **	0.04	0.33	0.02	0.05	*
Total number of risk behaviors	572	0.92	-0.25 **	0.12	1.17	0.02	0.14	ns

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[b] Core GPA calculated as the average of English, Math, Social Studies, and Science grades. Three (3) sites did not report either baseline or follow-up data and were therefore excluded from the analysis.

[c] Four (4) programs were excluded from the analysis of days absent due to incomplete reporting.

[d] Five (5) programs were excluded from the analysis of any suspensions due to incomplete reporting.

Exhibit G.14
PARTICIPANT IMPACTS AT FOLLOW-UP
AT-RISK BEHAVIOR AT BASELINE
ANALYSIS OF COVARIANCE MODEL

		At-Risk Behavior (N=397)			No At-Risk Behavior (N=347)			
Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
Civic/Social Attitudes and Behavior								
Personal and social responsibility (Search Institute scale: range 5-25):								
Social welfare subscale	520	17.33	0.47	0.46	18.98	1.28 ***	0.47	ns
Community involvement	520	17.02	0.80 *	0.47	18.98	1.33 ***	0.49	ns
Search-Total Personal/Social Responsibility (range 10-50)	520	34.34	1.18	0.83	37.97	2.56 ***	0.85	ns
Cultural Diversity (range 1-4)	521	3.34	0.04	0.05	3.46	0.04	0.06	ns
Psychosocial maturity (Greenberger scale: range 1-4):								
Communication Skills subscale	520	2.81	0.03	0.06	2.91	0.11 *	0.06	ns
Work Orientation subscale	520	2.58	-0.02	0.06	2.89	0.11 *	0.06	*
Service Leadership (Sieber scale: range 1-4)	521	2.69	0.21 ***	0.06	2.92	0.22 ***	0.06	ns
Total Civic Attitudes	520	98.10	3.04 **	1.52	105.29	4.77 ***	1.56	ns
Volunteer Behavior								
Volunteered for a community organization or got involved in other community service in last 6 months	512	0.72	0.09 *	0.05	0.78	0.13 **	0.05	ns
Average hours doing volunteer work or community service in last 6 months	462	33.37	32.63	19.94	53.13	35.02 *	20.68	ns
Educational Impacts (Connell scale: range 1-4):								
Educational competence	502	2.94	0.00	0.04	3.12	0.09 **	0.04	ns
School engagement	521	3.06	0.12 **	0.06	3.37	0.14 **	0.06	ns

[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

Exhibit G.14 (Continued)
PARTICIPANT IMPACTS AT FOLLOW-UP
AT-RISK BEHAVIOR AT BASELINE
ANALYSIS OF COVARIANCE MODEL

		At-Risk Behavior (N=397)			No At-Risk Behavior (N=347)			
Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
English grade	480	1.94	0.03	0.15	2.48	-0.02	0.15	ns
Math grade	456	1.91	0.50 ***	0.16	2.47	0.28 *	0.16	ns
Social studies grade	442	2.01	0.42 ***	0.15	2.45	-0.04	0.15	**
Science grade	441	2.02	0.46 ***	0.16	2.67	0.38 **	0.15	ns
Overall/School GPA	369	2.00	0.31 **	0.12	2.42	0.06	0.12	*
Core GPA[b]	493	1.98	0.25 **	0.12	2.50	0.11	0.12	ns
Fail 1 or more courses	494	0.30	-0.10 *	0.06	0.11	0.05	0.06	**
Days absent[c]	408	14.38	-0.02	1.05	6.94	-2.69 ***	1.01	**
Suspended last year[d]	367	0.20	-0.11 **	0.04	0.17	-0.01	0.04	*
Graduate 4-year college or beyond	512	0.61	0.13 **	0.05	0.78	0.15 ***	0.05	ns
Homework: 3 hours or more per week	499	0.54	0.16 **	0.06	0.68	0.12 *	0.07	ns
Involvement with Risk Behavior								
Consumed any alcohol in last 30 days	504	0.66	-0.11 *	0.06	0.02	-0.07	0.06	ns
Used illegal drugs in last 30 days	474	0.24	0.02	0.05	0.01	-0.04	0.05	ns
Arrested in last 6 months	504	0.18	0.01	0.03	0.03	-0.06 *	0.03	ns
Ever pregnant or made someone pregnant	496	0.11	-0.01	0.04	0.00	-0.01	0.04	ns
Fought, hurt, or used weapon in last 6 months	503	0.58	-0.04	0.06	0.01	-0.05	0.06	ns
Total number of risk behaviors	466	1.79	-0.14	0.14	0.08	-0.22	0.15	ns

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[b] Core GPA calculated as the average of English, Math, Social Studies, and Science grades. Three (3) sites did not report either baseline or follow-up data and were therefore excluded from the analysis.

[c] Four (4) programs were excluded from the analysis of days absent due to incomplete reporting.

[d] Five (5) programs were excluded from the analysis of any suspensions due to incomplete reporting.

Exhibit G.15

PARTICIPANT IMPACTS AT FOLLOW-UP
VOLUNTEER VS. NOT VOLUNTEER AT BASELINE
ANALYSIS OF COVARIANCE MODEL

		Volunteered (N=459)			Not Volunteered (N=442)			
Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
Civic/Social Attitudes and Behavior								
Personal and social responsibility (Search Institute scale: range 5-25):								
Social welfare subscale	645	19.88	1.00 **	0.41	17.46	0.74 *	0.41	ns
Community involvement	645	20.00	1.07 **	0.42	17.03	0.44	0.43	ns
Search-Total Personal/Social Responsibility (range 10-50)	645	39.89	2.05 ***	0.73	34.49	1.11	0.74	ns
Cultural Diversity (range 1-4)	646	3.55	0.08 *	0.05	3.34	0.07	0.05	ns
Psychosocial maturity (Greenberger scale: range 1-4):								
Communication Skills subscale	645	3.00	0.11 **	0.05	2.80	0.02	0.05	ns
Work Orientation subscale	645	2.92	0.04	0.05	2.68	0.08	0.05	ns
Service Leadership (Sieber scale: range 1-4)	646	3.05	0.21 ***	0.05	2.62	0.19 ***	0.05	ns
Total Civic Attitudes	645	109.48	4.72 ***	1.36	97.58	3.29 **	1.39	ns
Volunteer Behavior								
Volunteered for a community organization or got involved in other community service in last 6 months	639	0.97	0.13 ***	0.05	0.60	0.16 ***	0.05	ns
Average hours doing volunteer work or community service in last 6 months	592	81.30	47.54 ***	17.57	0.00	19.18	17.73	ns
Educational Impacts (Connell scale: range 1-4):								
Educational competence	625	3.13	0.07 *	0.04	2.98	0.03	0.04	ns
School engagement	646	3.39	0.14 ***	0.05	3.11	0.11 **	0.05	ns

[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

Exhibit G.15 (Continued)
PARTICIPANT IMPACTS AT FOLLOW-UP
VOLUNTEER VS. NOT VOLUNTEER AT BASELINE
ANALYSIS OF COVARIANCE MODEL

		Volunteered (N=459)			Not Volunteered (N=442)			
Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
English grade	472	2.40	0.09	0.14	2.24	-0.09	0.14	ns
Math grade	453	2.37	0.26	0.16	2.24	0.29 *	0.15	ns
Social studies grade	444	2.55	0.31 **	0.15	2.26	0.09	0.14	ns
Science grade	429	2.48	0.53 ***	0.16	2.32	0.31 **	0.15	ns
Overall/School GPA	385	2.43	0.15	0.12	2.22	0.10	0.12	ns
Core GPA[b]	497	2.49	0.22 *	0.11	2.29	0.10	0.11	ns
Fail 1 or more courses	499	0.15	-0.01	0.05	0.20	-0.00	0.05	ns
Days absent[c]	416	9.80	-0.07	0.85	10.78	-1.23	0.83	ns
Suspended last year[d]	338	0.15	-0.02	0.04	0.26	-0.06	0.04	ns
Graduate 4-year college or beyond	638	0.85	0.19 ***	0.05	0.71	0.11 **	0.05	ns
Homework: 3 hours or more per week	624	0.79	0.07	0.05	0.57	0.11 **	0.05	ns
Involvement with Risk Behavior								
Consumed any alcohol in last 30 days	534	0.36	-0.06	0.07	0.35	-0.05	0.06	ns
Used illegal drugs in last 30 days	506	0.10	0.08	0.05	0.15	-0.03	0.05	*
Arrested in last 6 months	535	0.08	-0.02	0.03	0.13	0.00	0.03	ns
Ever pregnant or made someone pregnant	527	0.07	-0.02	0.03	0.08	-0.06 *	0.03	ns
Fought, hurt, or used weapon in last 6 months	534	0.25	-0.03	0.05	0.38	-0.07	0.05	ns
Total number of risk behaviors	498	0.85	-0.06	0.14	1.13	-0.22	0.14	ns

[b] Core GPA calculated as the average of English, Math, Social Studies, and Science grades. Three (3) sites did not report either baseline or follow-up data and were therefore excluded from the analysis.

[c] Four (4) programs were excluded from the analysis of days absent due to incomplete reporting.

[d] Five (5) programs were excluded from the analysis of any suspensions due to incomplete reporting.

Exhibit G.16

PARTICIPANT IMPACTS AT FOLLOW-UP
STUDENTS IN SERVICE CLASS LAST YEAR
ANALYSIS OF COVARIANCE MODEL

		In Service Class (N=298)			Not in Service Class (N=746)			
Characteristic	**N**	**Control Group Mean (1)**	**Impact[a] (2)**	**Standard Error of Impact (3)**	**Control Group Mean (4)**	**Impact[a] (5)**	**Standard Error of Impact (6)**	**Test of Difference in Impacts[a] (7)**
Civic/Social Attitudes and Behavior								
Personal and social responsibility (Search Institute scale: range 5-25):								
Social welfare subscale	735	19.69	0.69 *	0.39	17.88	0.80 ***	0.30	ns
Community involvement	735	19.80	0.88 **	0.41	17.66	0.94 ***	0.31	ns
Search-Total Personal/Social Responsibility (range 10-50)	735	39.49	1.48 **	0.71	35.54	1.68 ***	0.55	ns
Cultural Diversity (range 1-4)	736	3.47	0.09 *	0.05	3.41	0.06 *	0.04	ns
Psychosocial maturity (Greenberger scale: range 1-4):								
Communication Skills subscale	735	3.05	0.12 **	0.05	2.82	0.04	0.04	*
Work Orientation subscale	735	2.93	0.07	0.05	2.72	0.03	0.04	ns
Service Leadership (Sieber scale: range 1-4)	736	3.09	0.27 ***	0.05	2.71	0.16 ***	0.04	**
Total Civic Attitudes	735	108.82	4.53 ***	1.32	100.14	3.49 ***	1.01	ns
Volunteer Behavior								
Volunteered for a community organization or got involved in other community service in last 6 months	727	0.92	0.15 ***	0.04	0.70	0.14 ***	0.03	ns
Average hours doing volunteer work or community service in last 6 months	664	56.01	50.33 ***	16.59	32.09	32.16 **	12.66	ns
Educational Impacts (Connell scale: range 1-4):								
Educational competence	709	3.11	0.06	0.04	3.03	0.04	0.03	ns
School engagement	736	3.39	0.08 *	0.05	3.17	0.12 ***	0.04	ns

[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

Exhibit G.16 (Continued)
PARTICIPANT IMPACTS AT FOLLOW-UP
STUDENTS IN SERVICE CLASS LAST YEAR
ANALYSIS OF COVARIANCE MODEL

		In Service Class (N=298)			Not in Service Class (N=746)			
Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
English grade	550	2.28	-0.20	0.14	2.25	0.05	0.11	*
Math grade	520	2.27	-0.03	0.15	2.23	0.45 ***	0.12	***
Social studies grade	516	2.33	0.02	0.14	2.29	0.30 ***	0.11	**
Science grade	496	2.27	0.22	0.15	2.36	0.52 ***	0.12	**
Overall/School GPA	458	2.14	0.02	0.11	2.29	0.21 **	0.09	*
Core GPA[b]	579	2.32	-0.03	0.11	2.30	0.25 ***	0.09	**
Fail 1 or more courses	582	0.14	0.05	0.05	0.21	-0.06	0.04	**
Days absent[c]	482	10.43	-0.60	0.88	10.66	-0.94	0.72	ns
Suspended last year[d]	398	0.11	-0.01	0.04	0.22	-0.08 **	0.03	*
Graduate 4-year college or beyond	727	0.78	0.08 *	0.05	0.75	0.15 ***	0.03	*
Homework: 3 hours or more per week	711	0.79	0.05	0.05	0.64	0.10 **	0.04	ns
Involvement with Risk Behavior								
Consumed any alcohol in last 30 days	604	0.36	-0.01	0.07	0.38	-0.08 *	0.05	ns
Used illegal drugs in last 30 days	574	0.19	0.04	0.05	0.12	0.00	0.04	ns
Arrested in last 6 months	605	0.14	-0.03	0.03	0.11	-0.00	0.02	ns
Ever pregnant or made someone pregnant	597	0.06	0.00	0.03	0.09	-0.03	0.02	ns
Fought, hurt, or used weapon in last 6 months	604	0.21	-0.01	0.05	0.34	-0.05	0.04	ns
Total number of risk behaviors	566	0.95	-0.02	0.14	1.05	-0.15	0.10	ns

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[b] Core GPA calculated as the average of English, Math, Social Studies, and Science grades. Three (3) sites did not report either baseline or follow-up data and were therefore excluded from the analysis.

[c] Four (4) programs were excluded from the analysis of days absent due to incomplete reporting.

[d] Five (5) programs were excluded from the analysis of any suspensions due to incomplete reporting.

Exhibit G.17
PARTICIPANT IMPACTS AT FOLLOW-UP
STUDENTS EVER PARTICIPATED IN SERVICE CLASS
ANALYSIS OF COVARIANCE MODEL

		Ever in Service Class (N=452)			Not in Service Class (N=594)			
Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
Civic/Social Attitudes and Behavior								
Personal and social responsibility (Search Institute scale: range 5-25):								
Social welfare subscale	737	19.18	0.46	0.37	17.71	0.99 ***	0.33	ns
Community involvement	737	19.22	0.85 **	0.38	17.45	0.98 ***	0.35	ns
Search-Total Personal/Social Responsibility (range 10-50)	737	38.40	1.25 *	0.67	35.16	1.89 ***	0.60	ns
Cultural Diversity (range 1-4)	738	3.45	0.07	0.04	3.41	0.07 *	0.04	ns
Psychosocial maturity (Greenberger scale: range 1-4):								
Communication Skills subscale	737	3.01	0.09 **	0.05	2.78	0.04	0.04	ns
Work Orientation subscale	737	2.88	0.07	0.05	2.69	0.03	0.04	ns
Service Leadership (Sieber scale: range 1-4)	738	2.98	0.21 ***	0.05	2.67	0.18 ***	0.04	ns
Total Civic Attitudes	737	106.26	3.60 ***	1.24	99.44	3.92 ***	1.12	ns
Volunteer Behavior								
Volunteered for a community organization or got involved in other community service in last 6 months	729	0.88	0.14 ***	0.04	0.67	0.15 ***	0.04	ns
Average hours doing volunteer work or community service in last 6 months	667	59.88	50.43 ***	15.59	23.61	27.88 **	13.98	ns
Educational Impacts (Connell scale: range 1-4):								
Educational competence	711	3.09	0.02	0.04	3.02	0.07 **	0.03	ns
School engagement	738	3.33	0.10 **	0.05	3.15	0.13 ***	0.04	ns

[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

Exhibit G.17 (Continued)
PARTICIPANT IMPACTS AT FOLLOW-UP
STUDENTS EVER PARTICIPATED IN SERVICE CLASS
ANALYSIS OF COVARIANCE MODEL

		Ever in Service Class (N=452)			Not in Service Class (N=594)			
Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
English grade	551	2.27	-0.11	0.13	2.25	0.04	0.12	ns
Math grade	521	2.30	0.08	0.15	2.21	0.47 ***	0.13	**
Social studies grade	517	2.38	0.18	0.13	2.25	0.23 *	0.13	ns
Science grade	497	2.14	0.34 **	0.14	2.48	0.49 ***	0.13	ns
Overall/School GPA	458	2.16	0.03	0.11	2.31	0.25 **	0.10	*
Core GPA[b]	580	2.31	0.06	0.10	2.31	0.24 **	0.10	ns
Fail 1 or more courses	583	0.18	0.02	0.05	0.20	-0.07	0.05	ns
Days absent[c]	483	10.02	-1.00	0.83	11.05	-0.67	0.80	ns
Suspended last year[d]	398	0.08	-0.02	0.04	0.26	-0.09 **	0.04	ns
Graduate 4-year college or beyond	729	0.78	0.08 **	0.04	0.75	0.16 ***	0.04	ns
Homework: 3 hours or more per week	713	0.76	0.08	0.05	0.61	0.09 **	0.04	ns
Involvement with Risk Behavior								
Consumed any alcohol in last 30 days	606	0.42	-0.06	0.06	0.34	-0.07	0.05	ns
Used illegal drugs in last 30 days	576	0.19	0.04	0.05	0.10	-0.01	0.04	ns
Arrested in last 6 months	607	0.11	-0.01	0.03	0.13	-0.01	0.02	ns
Ever pregnant or made someone pregnant	599	0.07	-0.00	0.03	0.09	-0.03	0.03	ns
Fought, hurt, or used weapon in last 6 months	606	0.21	-0.00	0.05	0.38	-0.06	0.04	ns
Total number of risk behaviors	568	1.00	-0.05	0.13	1.06	-0.16	0.11	ns

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[b] Core GPA calculated as the average of English, Math, Social Studies, and Science grades. Three (3) sites did not report either baseline or follow-up data and were therefore excluded from the analysis.

[c] Four (4) programs were excluded from the analysis of days absent due to incomplete reporting.

[d] Five (5) programs were excluded from the analysis of any suspensions due to incomplete reporting.

Exhibit G.18
PARTICIPANT IMPACTS AT FOLLOW-UP
MIDDLE AND HIGH SCHOOL STUDENTS
ANALYSIS OF COVARIANCE MODEL

		Middle School (N=330)			High School (N=735)			
Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
Civic/Social Attitudes and Behavior								
Personal and social responsibility (Search Institute scale: range 5-25):								
Social welfare subscale	750	17.91	0.84 *	0.44	18.55	0.66 **	0.33	ns
Community involvement	750	18.04	0.55	0.46	18.25	1.10 ***	0.34	ns
Search-Total Personal/Social Responsibility (range 10-50)	750	35.95	1.34 *	0.80	36.80	1.68 ***	0.59	ns
Cultural Diversity (range 1-4)	751	3.31	0.14 ***	0.05	3.49	0.03	0.04	*
Psychosocial maturity (Greenberger scale: range 1-4):								
Communication Skills subscale	750	2.74	0.10 *	0.06	2.96	0.04	0.04	ns
Work Orientation subscale	750	2.71	0.09 *	0.06	2.81	0.02	0.04	ns
Service Leadership (Sieber scale: range 1-4)	751	2.84	0.10 *	0.06	2.79	0.23 ***	0.04	*
Total Civic Attitudes	750	100.84	3.52 **	1.47	103.07	3.88 ***	1.09	ns
Volunteer Behavior								
Volunteered for a community organization or got involved in other community service in last 6 months	742	0.88	0.11 **	0.05	0.70	0.16 ***	0.04	ns
Average hours doing volunteer work or community service in last 6 months	678	55.04	34.48 *	19.13	32.62	37.49 ***	13.49	ns
Educational Impacts (Connell scale: range 1-4):								
Educational competence	724	2.96	0.09 **	0.04	3.10	0.03	0.03	ns
School engagement	751	3.24	0.13 **	0.06	3.22	0.11 **	0.04	ns

[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

Exhibit G.18 (Continued)
PARTICIPANT IMPACTS AT FOLLOW-UP
MIDDLE AND HIGH SCHOOL STUDENTS
ANALYSIS OF COVARIANCE MODEL

		Middle School (N=330)			High School (N=735)			
Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Control Group Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Test of Difference in Impacts[a] (7)
English grade	562	2.20	-0.05	0.15	2.28	-0.03	0.13	ns
Math grade	532	2.17	0.09	0.16	2.28	0.43 ***	0.14	*
Social studies grade	523	2.12	0.05	0.15	2.41	0.30 **	0.13	ns
Science grade	507	2.20	0.34 **	0.15	2.45	0.48 ***	0.14	ns
Overall/School GPA	467	1.95	0.05	0.13	2.42	0.19 *	0.10	ns
Core GPA[b]	591	2.16	0.02	0.12	2.39	0.22 **	0.10	ns
Fail 1 or more courses	594	0.27	0.02	0.06	0.14	-0.05	0.05	ns
Days absent[c]	492	11.21	-0.26	1.08	10.25	-1.17	0.81	ns
Suspended last year[d]	405	0.08	-0.06	0.04	0.27	-0.06	0.04	ns
Graduate 4-year college or beyond	742	0.72	0.15 ***	0.05	0.78	0.12 ***	0.04	ns
Homework: 3 hours or more per week	726	0.59	0.14 **	0.06	0.72	0.06	0.04	ns
Involvement with Risk Behavior								
Consumed any alcohol in last 30 days	618	0.25	-0.07	0.08	0.41	-0.07	0.05	ns
Used illegal drugs in last 30 days	587	0.06	-0.03	0.06	0.17	0.01	0.04	ns
Arrested in last 6 months	619	0.07	0.01	0.04	0.14	-0.02	0.02	ns
Ever pregnant or made someone pregnant	611	0.09	-0.01	0.04	0.08	-0.02	0.03	ns
Fought, hurt, or used weapon in last 6 months	618	0.42	0.03	0.07	0.27	-0.06	0.04	ns
Total number of risk behaviors	579	0.87	-0.09	0.18	1.09	-0.15	0.11	ns

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[b] Core GPA calculated as the average of English, Math, Social Studies, and Science grades. Three (3) sites did not report either baseline or follow-up data and were therefore excluded from the analysis.

[c] Four (4) programs were excluded from the analysis of days absent due to incomplete reporting.

[d] Five (5) programs were excluded from the analysis of any suspensions due to incomplete reporting.

APPENDIX H

FOLLOW-UP IMPACT TABLES: "REPEATERS" AND "NON-REPEATERS"

Exhibit H.1
PARTICIPANT IMPACTS AT FOLLOW-UP
REPEATERS AND NON-REPEATERS
ALL PARTICIPANTS
DIFFERENCE-IN-DIFFERENCE MODEL

Characteristic	N	Control Group Mean (1)	Repeaters Impact[a] (2)	Standard Error of Impact (3)	Impact as % of Control Mean (4)	Non-Repeaters Impact[a] (5)	Standard Error of Impact (6)	Impact as % of Control Mean (7)	Test of Difference in Impacts[a] (8)
Civic/Social Attitudes and Behavior									
Personal and social responsibility (Search Institute scale: range 5-25):									
Social welfare subscale	725	18.39	0.26	0.38	1.39	0.35	0.39	1.91	
Community involvement	725	18.15	0.16	0.41	0.88	0.14	0.42	0.75	
Search - Total Personal/Social Responsibility (range 10-50)	725	36.54	0.41	0.69	1.14	0.49	0.70	1.34	
Cultural Diversity (range 1-4)	726	3.44	0.01	0.04	0.21	-0.01	0.04	-0.29	
Psychosocial maturity (Greenberger scale: range 1-4):									
Communication Skills subscale	726	2.89	0.04	0.05	1.31	0.02	0.05	0.61	
Work Orientation subscale	726	2.77	-0.03	0.05	-1.18	-0.01	0.05	-0.53	
Service Leadership (Sieber scale: range 1-4)	726	2.80	0.12 **	0.05	4.39	-0.01	0.05	-0.48	***
Total Civic Attitudes	725	102.39	1.72	1.20	1.68	0.25	1.22	0.24	
Volunteer Behavior									
Volunteered for a community organization or got involved in other community service in last 6 months	724	0.76	0.07 *	0.04	9.83	-0.05	0.05	-6.42	***
Average hours doing volunteer work or community service in last 6 months	667	39.32	48.64 **	19.50	123.69	-16.84	19.80	-42.82	***
Educational Impacts (Connell scale: range 1-4):									
Educational competence	705	3.06	0.01	0.04	0.32	-0.04	0.04	-1.28	
School engagement	726	3.24	0.12 **	0.05	3.78	0.03	0.05	0.80	**

[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

Exhibit H.1 (Continued)
PARTICIPANT IMPACTS AT FOLLOW-UP
REPEATERS AND NON-REPEATERS
ALL PARTICIPANTS
DIFFERENCE-IN-DIFFERENCE MODEL

		Repeaters				Non-Repeaters			
Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Impact as % of Control Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Impact as % of Control Mean (7)	Test of Difference in Impacts[a] (8)
English grade	450	2.32	-0.49 ***	0.14	-21.27	-0.26	0.17	-11.36	
Math grade	427	2.34	0.18	0.16	7.51	0.23	0.18	9.73	
Social studies grade	415	2.40	-0.01	0.14	-0.61	-0.10	0.17	-4.25	
Science grade	410	2.45	0.27	0.17	10.86	0.35 *	0.19	14.23	
Overall/School GPA	361	2.42	-0.07	0.11	-2.88	0.08	0.13	3.22	
Core GPA[b]	470	2.41	0.00	0.11	0.18	0.05	0.13	2.06	
Fail 1 or more courses	471	0.17	0.03	0.05	17.12	0.00	0.06	1.05	
Days absent[c]	393	8.32	0.18	0.89	2.19	-0.55	1.06	-6.65	
Suspended last year[d]	335	0.16	0.01	0.05	8.54	-0.02	0.06	-12.87	
Graduate 4-year college or beyond	723	0.77	0.09 *	0.04	11.16	0.03	0.05	4.31	
Homework: 3 hours or more per week	707	0.69	0.06	0.05	8.46	0.05	0.05	6.83	
Involvement with Risk Behavior									
Consumed any alcohol in last 30 days	609	0.38	-0.11 *	0.07	-28.61	-0.05	0.07	-12.93	
Used illegal drugs in last 30 days	579	0.15	0.01	0.05	5.23	-0.03	0.05	-21.54	
Arrested in last 6 months	610	0.12	-0.05	0.04	-39.42	0.03	0.04	22.49	*
Ever pregnant or made someone pregnant	602	0.08	0.04	0.04	55.84	0.02	0.04	26.39	
Fought, hurt, or used weapon in last 6 months	609	0.30	-0.05	0.06	-17.44	0.04	0.06	12.63	
Total number of risk behaviors	571	1.04	-0.13	0.13	-12.47	0.03	0.13	3.07	

[b] Core GPA calculated as the average of English, Math, Social Studies, and Science grades. Three (3) sites did not report either baseline or follow-up data and were therefore excluded from the analysis.

[c] Four (4) programs were excluded from the analysis of days absent due to incomplete reporting.

[d] Five (5) programs were excluded from the analysis of any suspensions due to incomplete reporting.

Exhibit H.2
PARTICIPANT IMPACTS AT FOLLOW-UP
REPEATERS AND NON-REPEATERS
HIGH SCHOOL PARTICIPANTS
DIFFERENCE-IN-DIFFERENCE MODEL

Characteristic	N	Control Group Mean (1)	Repeaters Impact[a] (2)	Standard Error of Impact (3)	Impact as % of Control Mean (4)	Non-Repeaters Impact[a] (5)	Standard Error of Impact (6)	Impact as % of Control Mean (7)	Test of Difference in Impacts[a] (8)
Civic/Social Attitudes and Behavior									
Personal and social responsibility (Search Institute scale: range 5-25):									
Social welfare subscale	494	18.56	0.41	0.44	2.22	0.32	0.45	1.71	
Community involvement	494	18.19	0.47	0.46	2.56	-0.24	0.47	-1.33	
Search - Total Personal/Social Responsibility (range 10-50)	494	36.75	0.88	0.79	2.39	0.08	0.80	0.21	
Cultural Diversity (range 1-4)	494	3.49	-0.01	0.05	-0.15	-0.06	0.05	-1.75	
Psychosocial maturity (Greenberger scale: range 1-4):									
Communication Skills subscale	494	2.96	0.02	0.06	0.70	0.05	0.06	1.73	
Work Orientation subscale	494	2.81	-0.01	0.06	-0.38	0.00	0.06	0.09	
Service Leadership (Sieber scale: range 1-4)	494	2.79	0.18 ***	0.06	6.51	0.00	0.06	0.01	***
Total Civic Attitudes	494	103.03	2.63 *	1.40	2.56	-0.59	1.42	-0.58	**
Volunteer Behavior									
Volunteered for a community organization or got involved in other community service in last 6 months	492	0.70	0.07	0.05	10.19	-0.06	0.05	-7.84	**
Average hours doing volunteer work or community service in last 6 months	458	32.30	40.86 **	17.68	126.48	10.57	17.66	32.73	*
Educational Impacts (Connell scale: range 1-4):									
Educational competence	478	3.10	-0.01	0.04	-0.35	0.00	0.04	0.07	
School engagement	494	3.23	0.13 **	0.06	3.94	0.07	0.06	2.29	

[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

Exhibit H.2 (Continued)
PARTICIPANT IMPACTS AT FOLLOW-UP
REPEATERS AND NON-REPEATERS
HIGH SCHOOL PARTICIPANTS
DIFFERENCE-IN-DIFFERENCE MODEL

			Repeaters				Non-Repeaters				
Characteristic	N	Control Group Mean (1)	Impact[a] (2)		Standard Error of Impact (3)	Impact as % of Control Mean (4)	Impact[a] (5)		Standard Error of Impact (6)	Impact as % of Control Mean (7)	Test of Difference in Impacts[a] (8)
English grade	278	2.33	-0.56	***	0.19	-23.88	-0.30		0.22	-12.90	
Math grade	254	2.38	0.17		0.20	6.96	0.34		0.24	14.44	
Social studies grade	252	2.45	0.02		0.18	0.79	-0.17		0.23	-6.82	
Science grade	238	2.52	0.43	**	0.21	16.92	0.43	*	0.25	16.99	
Overall/School GPA	231	2.49	-0.01		0.14	-0.21	0.24		0.16	9.48	
Core GPA[b]	297	2.47	0.05		0.13	1.97	0.09		0.16	3.58	
Fail 1 or more courses	298	0.13	-0.02		0.06	-13.66	-0.09		0.08	-66.65	
Days absent[c]	277	8.77	-0.30		1.07	-3.38	-2.35	*	1.31	-26.78	*
Suspended last year[d]	192	0.23	0.07		0.08	31.49	-0.09		0.09	-38.30	*
Graduate 4-year college or beyond	491	0.78	0.09	*	0.05	11.59	0.04		0.05	4.73	
Homework: 3 hours or more per week	475	0.73	0.11	*	0.06	14.42	0.07		0.06	9.79	
Involvement with Risk Behavior											
Consumed any alcohol in last 30 days	452	0.43	-0.08		0.08	-18.29	-0.06		0.08	-13.28	
Used illegal drugs in last 30 days	437	0.17	0.04		0.06	22.13	-0.03		0.06	-18.20	
Arrested in last 6 months	453	0.14	0.01		0.04	5.58	0.04		0.04	29.65	
Ever pregnant or made someone pregnant	449	0.08	0.04		0.04	53.11	0.04		0.04	52.34	
Fought, hurt, or used weapon in last 6 months	452	0.26	-0.03		0.06	-10.68	-0.01		0.06	-3.47	
Total number of risk behaviors	433	1.10	0.00		0.15	0.23	-0.00		0.14	-0.00	

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[b] Core GPA calculated as the average of English, Math, Social Studies, and Science grades. Three (3) sites did not report either baseline or follow-up data and were therefore excluded from the analysis.

[c] Four (4) programs were excluded from the analysis of days absent due to incomplete reporting.

[d] Five (5) programs were excluded from the analysis of any suspensions due to incomplete reporting.

Exhibit H.3
PARTICIPANT IMPACTS AT FOLLOW-UP
REPEATERS AND NON-REPEATERS
MIDDLE SCHOOL PARTICIPANTS
DIFFERENCE-IN-DIFFERENCE MODEL

		Repeaters				Non-Repeaters			
Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Impact as % of Control Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Impact as % of Control Mean (7)	Test of Difference in Impacts[a] (8)
Civic/Social Attitudes and Behavior									
Personal and social responsibility (Search Institute scale: range 5-25):									
Social welfare subscale	231	18.03	-0.18	0.76	-1.01	0.48	0.77	2.67	
Community involvement	231	18.07	-0.57	0.85	-3.14	0.65	0.86	3.59	
Search - Total Personal/Social Responsibility (range 10-50)	231	36.10	-0.75	1.39	-2.08	1.13	1.41	3.13	
Cultural Diversity (range 1-4)	232	3.33	0.04	0.08	1.14	0.09	0.09	2.75	
Psychosocial maturity (Greenberger scale: range 1-4):									
Communication Skills subscale	232	2.75	0.12	0.09	4.42	-0.01	0.09	-0.20	
Work Orientation subscale	232	2.69	-0.04	0.09	-1.39	-0.01	0.09	-0.22	
Service Leadership (Sieber scale: range 1-4)	232	2.82	-0.01	0.10	-0.52	-0.03	0.10	-1.24	
Total Civic Attitudes	231	101.03	-0.49	2.36	-0.48	1.81	2.40	1.79	
Volunteer Behavior									
Volunteered for a community organization or got involved in other community service in last 6 months	232	0.89	0.08	0.09	8.80	-0.06	0.09	-6.43	
Average hours doing volunteer work or community service in last 6 months	209	55.59	96.19 *	51.51	173.03	-52.56	53.02	-94.54	***
Educational Impacts (Connell scale: range 1-4):									
Educational competence	227	2.99	0.05	0.07	1.58	-0.13 *	0.07	-4.50	**
School engagement	232	3.25	0.08	0.09	2.48	-0.08	0.09	-2.40	*

[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

Exhibit H.3 (Continued)
PARTICIPANT IMPACTS AT FOLLOW-UP
REPEATERS AND NON-REPEATERS
MIDDLE SCHOOL PARTICIPANTS
DIFFERENCE-IN-DIFFERENCE MODEL

		Repeaters				Non-Repeaters			
Characteristic	**N**	**Control Group Mean (1)**	**Impact[a] (2)**	**Standard Error of Impact (3)**	**Impact as % of Control Mean (4)**	**Impact[a] (5)**	**Standard Error of Impact (6)**	**Impact as % of Control Mean (7)**	**Test of Difference in Impacts[a] (8)**
English grade	172	2.29	-0.41 *	0.24	-17.95	-0.25	0.26	-10.95	
Math grade	173	2.28	0.29	0.26	12.54	0.05	0.28	2.20	
Social studies grade	163	2.32	-0.19	0.26	-8.37	-0.17	0.28	-7.47	
Science grade	172	2.35	0.02	0.29	0.84	0.19	0.31	8.05	
Overall/School GPA	130	2.28	-0.18	0.22	-7.86	-0.13	0.25	-5.66	
Core GPA[b]	173	2.29	-0.07	0.20	-3.22	-0.07	0.22	-3.18	
Fail 1 or more courses	173	0.24	0.14	0.11	56.46	0.16	0.11	66.89	
Days absent[c]	116	7.22	2.04	1.93	28.28	3.61 *	2.04	49.93	
Suspended last year[d]	143	0.06	-0.04	0.07	-61.12	0.06	0.07	92.34	
Graduate 4-year college or beyond	232	0.74	0.06	0.10	8.21	0.03	0.10	4.09	
Homework: 3 hours or more per week	232	0.60	-0.05	0.11	-8.82	0.01	0.11	1.71	
Involvement with Risk Behavior									
Consumed any alcohol in last 30 days	157	0.25	-0.17	0.13	-67.34	-0.06	0.13	-25.74	
Used illegal drugs in last 30 days	142	0.06	-0.07	0.10	-112.4	-0.08	0.11	-119.6	
Arrested in last 6 months	157	0.08	-0.22 **	0.09	-283.8	-0.06	0.10	-81.60	*
Ever pregnant or made someone pregnant	153	0.08	0.03	0.08	34.37	-0.08	0.08	-96.47	
Fought, hurt, or used weapon in last 6 months	157	0.40	-0.14	0.13	-35.96	0.19	0.13	47.02	***
Total number of risk behaviors	138	0.83	-0.56	0.34	-67.13	-0.04	0.35	-5.06	

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[b] Core GPA calculated as the average of English, Math, Social Studies, and Science grades. Three (3) sites did not report either baseline or follow-up data and were therefore excluded from the analysis.

[c] Four (4) programs were excluded from the analysis of days absent due to incomplete reporting.

[d] Five (5) programs were excluded from the analysis of any suspensions due to incomplete reporting.

Exhibit H.4

PARTICIPANT IMPACTS AT FOLLOW-UP
REPEATERS AND NON-REPEATERS
ALL PARTICIPANTS
ANALYSIS OF COVARIANCE MODEL

		Repeaters				Non-Repeaters			
Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Impact as % of Control Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Impact as % of Control Mean (7)	Test of Difference in Impacts[a] (8)
Civic/Social Attitudes and Behavior									
Personal and social responsibility (Search Institute scale: range 5-25):									
Social welfare subscale	725	18.39	0.91 ***	0.33	4.92	0.60 *	0.33	3.24	
Community involvement	725	18.15	1.18 ***	0.34	6.50	0.86 **	0.35	4.74	
Search - Total Personal/Social Responsibility (range 10-50)	725	36.54	2.00 ***	0.60	5.47	1.39 **	0.61	3.81	
Cultural Diversity (range 1-4)	726	3.44	0.08 **	0.04	2.22	0.05	0.04	1.51	
Psychosocial maturity (Greenberger scale: range 1-4):									
Communication Skills subscale	726	2.89	0.07 *	0.04	2.43	0.05	0.04	1.61	
Work Orientation subscale	726	2.77	0.05	0.04	1.65	0.02	0.04	0.67	
Service Leadership (Sieber scale: range 1-4)	726	2.80	0.25 ***	0.04	8.84	0.10 **	0.04	3.69	***
Total Civic Attitudes	725	102.39	4.75 ***	1.10	4.64	2.61 **	1.11	2.55	*
Volunteer Behavior									
Volunteered for a community organization or got involved in other community service in last 6 months	724	0.76	0.20 ***	0.04	25.89	0.05	0.04	6.72	***
Average hours doing volunteer work or community service in last 6 months	667	39.32	52.67 ***	13.65	133.96	8.55	13.89	21.75	***
Educational Impacts (Connell scale: range 1-4):									
Educational competence	705	3.06	0.06 *	0.03	1.83	0.01	0.03	0.46	
School engagement	726	3.24	0.16 ***	0.04	4.83	0.07 *	0.04	2.19	**

[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

Exhibit H.4 (Continued)
PARTICIPANT IMPACTS AT FOLLOW-UP
REPEATERS AND NON-REPEATERS
ALL PARTICIPANTS
ANALYSIS OF COVARIANCE MODEL

		Repeaters				Non-Repeaters			
Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Impact as % of Control Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Impact as % of Control Mean (7)	Test of Difference in Impacts[a] (8)
English grade	450	2.32	-0.06	0.12	-2.72	-0.02	0.14	-0.72	
Math grade	427	2.34	0.37 ***	0.14	16.01	0.30 *	0.16	12.83	
Social studies grade	415	2.40	0.21 *	0.13	8.88	0.02	0.15	1.02	
Science grade	410	2.45	0.53 ***	0.13	21.48	0.39 **	0.15	15.72	
Overall/School GPA	361	2.42	0.15	0.10	6.08	0.18	0.11	7.33	
Core GPA[b]	470	2.41	0.20 **	0.10	8.34	0.15	0.11	6.07	
Fail 1 or more courses	471	0.17	-0.06	0.05	-33.94	-0.04	0.05	-21.73	
Days absent[c]	393	8.32	-0.29	0.73	-3.49	-1.24	0.88	-14.96	
Suspended last year[d]	335	0.16	-0.04	0.03	-23.79	-0.01	0.03	-7.42	
Graduate 4-year college or beyond	723	0.77	0.15 ***	0.04	19.80	0.11 ***	0.04	14.78	
Homework: 3 hours or more per week	707	0.69	0.11 ***	0.04	16.12	0.08 *	0.04	11.83	
Involvement with Risk Behavior									
Consumed any alcohol in last 30 days	609	0.38	-0.11 **	0.05	-28.11	-0.04	0.05	-10.86	
Used illegal drugs in last 30 days	579	0.15	0.01	0.04	6.00	0.01	0.04	3.61	
Arrested in last 6 months	610	0.12	-0.04	0.02	-31.23	0.02	0.02	19.12	**
Ever pregnant or made someone pregnant	602	0.08	-0.01	0.03	-9.85	-0.01	0.03	-6.49	
Fought, hurt, or used weapon in last 6 months	609	0.30	-0.07 *	0.04	-23.78	-0.00	0.04	-0.67	
Total number of risk behaviors	571	1.04	-0.19 *	0.11	-18.28	-0.03	0.11	-2.79	

[b] Core GPA calculated as the average of English, Math, Social Studies, and Science grades. Three (3) sites did not report either baseline or follow-up data and were therefore excluded from the analysis.

[c] Four (4) programs were excluded from the analysis of days absent due to incomplete reporting.

[d] Five (5) programs were excluded from the analysis of any suspensions due to incomplete reporting.

Exhibit H.5

PARTICIPANT IMPACTS AT FOLLOW-UP
REPEATERS AND NON-REPEATERS
HIGH SCHOOL PARTICIPANTS
ANALYSIS OF COVARIANCE MODEL

		Repeaters				Non-Repeaters			
Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Impact as % of Control Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Impact as % of Control Mean (7)	Test of Difference in Impacts[a] (8)
Civic/Social Attitudes and Behavior									
Personal and social responsibility (Search Institute scale: range 5-25):									
Social welfare subscale	494	18.56	0.98 **	0.40	5.29	0.48	0.40	2.57	
Community involvement	494	18.19	1.45 ***	0.39	7.94	0.74 *	0.40	4.08	*
Search - Total Personal/Social Responsibility (range 10-50)	494	36.75	2.33 ***	0.70	6.35	1.11	0.70	3.03	*
Cultural Diversity (range 1-4)	494	3.49	0.04	0.04	1.25	0.01	0.05	0.26	
Psychosocial maturity (Greenberger scale: range 1-4):									
Communication Skills subscale	494	2.96	0.05	0.05	1.74	0.07	0.05	2.42	
Work Orientation subscale	494	2.81	0.05	0.05	1.95	0.04	0.05	1.52	
Service Leadership (Sieber scale: range 1-4)	494	2.79	0.32 ***	0.05	11.56	0.14 ***	0.05	4.95	***
Total Civic Attitudes	494	103.03	5.55 ***	1.28	5.38	2.15 *	1.29	2.09	***
Volunteer Behavior									
Volunteered for a community organization or got involved in other community service in last 6 months	492	0.70	0.23 ***	0.04	33.30	0.10 **	0.04	14.14	***
Average hours doing volunteer work or community service in last 6 months	458	32.30	51.06 ***	16.16	158.08	13.08	16.11	40.51	**
Educational Impacts (Connell scale: range 1-4):									
Educational competence	478	3.10	0.01	0.03	0.38	0.04	0.04	1.33	
School engagement	494	3.23	0.14 ***	0.05	4.41	0.10 **	0.05	3.21	

[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

Exhibit H.5 (Continued)
PARTICIPANT IMPACTS AT FOLLOW-UP
REPEATERS AND NON-REPEATERS
HIGH SCHOOL PARTICIPANTS
ANALYSIS OF COVARIANCE MODEL

		Repeaters				Non-Repeaters			
Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Impact as % of Control Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Impact as % of Control Mean (7)	Test of Difference in Impacts[a] (8)
English grade	278	2.33	0.11	0.16	-4.72	-0.05	0.19	-2.14	
Math grade	254	2.38	0.37 **	0.18	15.58	0.40 *	0.21	16.64	
Social studies grade	252	2.45	0.24	0.15	9.66	-0.07	0.19	-2.89	
Science grade	238	2.52	0.49 ***	0.17	19.46	0.25	0.20	9.81	
Overall/School GPA	231	2.49	0.16	0.13	6.28	0.24 *	0.14	9.68	
Core GPA[b]	297	2.47	0.20 *	0.12	8.05	0.14	0.14	5.83	
Fail 1 or more courses	298	0.13	-0.08	0.06	-57.83	-0.08	0.07	-63.59	
Days absent[c]	277	8.77	-1.04	0.82	-11.85	-3.12 ***	1.00	-35.56	**
Suspended last year[d]	192	0.23	-0.01	0.04	-5.63	-0.05	0.04	-20.38	
Graduate 4-year college or beyond	491	0.78	0.14 ***	0.04	17.81	0.11 **	0.04	13.67	
Homework: 3 hours or more per week	475	0.73	0.12 **	0.05	16.13	0.08	0.05	11.28	
Involvement with Risk Behavior									
Consumed any alcohol in last 30 days	452	0.43	-0.10	0.06	-23.53	-0.05	0.06	-11.59	
Used illegal drugs in last 30 days	437	0.17	0.03	0.05	17.50	0.00	0.05	2.76	
Arrested in last 6 months	453	0.14	-0.02	0.02	-12.02	0.02	0.02	14.15	
Ever pregnant or made someone pregnant	449	0.08	-0.02	0.03	-23.37	-0.01	0.03	-18.46	
Fought, hurt, or used weapon in last 6 months	452	0.26	-0.09 **	0.05	-33.96	-0.04	0.04	-16.89	
Total number of risk behaviors	433	1.10	-0.14	0.12	-12.49	-0.07	0.12	-6.59	

[b] Core GPA calculated as the average of English, Math, Social Studies, and Science grades. Three (3) sites did not report either baseline or follow-up data and were therefore excluded from the analysis.

[c] Four (4) programs were excluded from the analysis of days absent due to incomplete reporting.

[d] Five (5) programs were excluded from the analysis of any suspensions due to incomplete reporting.

Exhibit H.6
PARTICIPANT IMPACTS AT FOLLOW-UP REPEATERS AND NON-REPEATERS MIDDLE SCHOOL PARTICIPANTS ANALYSIS OF COVARIANCE MODEL

		Repeaters				Non-Repeaters			
Characteristic	N	Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Impact as % of Control Mean (4)	Impact[a] (5)	Standard Error of Impact (6)	Impact as % of Control Mean (7)	Test of Difference in Impacts[a] (8)
Civic/Social Attitudes and Behavior									
Personal and social responsibility (Search Institute scale: range 5-25):									
Social welfare subscale	231	18.03	0.58	0.63	3.21	0.88	0.64	4.87	
Community involvement	231	18.07	0.35	0.71	1.91	0.75	0.72	4.15	
Search - Total Personal/Social Responsibility (range 10-50)	231	36.10	0.82	1.21	2.28	1.61	1.22	4.47	
Cultural Diversity (range 1-4)	232	3.33	0.14 *	0.08	4.35	0.15 *	0.08	4.37	
Psychosocial maturity (Greenberger scale: range 1-4):									
Communication Skills subscale	232	2.75	0.14 *	0.08	4.96	0.01	0.08	0.45	
Work Orientation subscale	232	2.69	0.07	0.08	2.44	-0.01	0.08	-0.35	
Service Leadership (Sieber scale: range 1-4)	232	2.82	0.06	0.09	2.23	0.05	0.09	1.81	
Total Civic Attitudes	231	101.03	2.02	2.24	2.00	3.34	2.26	3.30	
Volunteer Behavior									
Volunteered for a community organization or got involved in other community service in last 6 months	232	0.89	0.14 *	0.07	16.09	-0.06	0.07	-6.33	***
Average hours doing volunteer work or community service in last 6 months	209	55.59	52.08 *	26.87	93.69	6.57	27.71	11.82	*
Educational Impacts (Connell scale: range 1-4):									
Educational competence	227	2.99	0.13 *	0.07	4.19	-0.06	0.07	-1.88	***
School engagement	232	3.25	0.14 *	0.08	4.35	0.01	0.08	0.32	*

[a] *Statistically significant at the 0.10 level; ** at the 0.05 level; *** at the .01 level (two-tailed test).

Exhibit H.6
PARTICIPANT IMPACTS AT FOLLOW-UP
REPEATERS AND NON-REPEATERS
MIDDLE SCHOOL PARTICIPANTS
ANALYSIS OF COVARIANCE MODEL

Characteristic	N	Repeaters Control Group Mean (1)	Impact[a] (2)	Standard Error of Impact (3)	Impact as % of Control Mean (4)	Non-Repeaters Impact[a] (5)	Standard Error of Impact (6)	Impact as % of Control Mean (7)	Test of Difference in Impacts[a] (8)
English grade	172	2.29	-0.16	0.20	-7.08	-0.16	0.21	-6.99	
Math grade	173	2.28	0.31	0.23	13.58	0.04	0.25	1.81	
Social studies grade	163	2.32	-0.00	0.25	-0.19	-0.04	0.26	-1.87	
Science grade	172	2.35	0.40 *	0.23	17.15	0.36	0.24	15.31	
Overall/School GPA	130	2.28	0.08	0.22	3.37	0.10	0.24	4.57	
Core GPA[b]	173	2.29	0.10	0.18	4.42	0.00	0.19	0.05	
Fail 1 or more courses	173	0.24	0.07	0.09	30.57	0.12	0.09	50.86	
Days absent[c]	116	7.22	2.17	1.77	30.04	3.57 *	1.87	49.40	
Suspended last year[d]	143	0.06	-0.04	0.06	-58.85	0.04	0.06	58.79	
Graduate 4-year college or beyond	232	0.74	0.16 *	0.08	21.09	0.13	0.08	17.92	
Homework: 3 hours or more per week	232	0.60	0.07	0.09	11.70	0.07	0.09	11.94	
Involvement with Risk Behavior									
Consumed any alcohol in last 30 days	157	0.25	-0.10	0.10	-39.44	-0.03	0.11	-10.29	
Used illegal drugs in last 30 days	142	0.06	-0.04	0.08	-66.46	0.01	0.08	21.18	
Arrested in last 6 months	157	0.08	-0.12 *	0.07	-156.7	0.01	0.07	8.12	*
Ever pregnant or made someone pregnant	153	0.08	0.01	0.06	8.31	-0.01	0.06	-7.65	
Fought, hurt, or used weapon in last 6 months	157	0.40	-0.05	0.11	-12.68	0.15	0.11	37.01	*
Total number of risk behaviors	138	0.83	-0.35	0.28	-42.50	0.00	0.28	0.40	

[b] Core GPA calculated as the average of English, Math, Social Studies, and Science grades. Three (3) sites did not report either baseline or follow-up data and were therefore excluded from the analysis.

[c] Four (4) programs were excluded from the analysis of days absent due to incomplete reporting.

[d] Five (5) programs were excluded from the analysis of any suspensions due to incomplete reporting.

APPENDIX I

SURVEY INSTRUMENTS

Baseline and Post-Program Student Surveys
Teacher Survey
Host Agency Interview

OMB #: 3045-0028
Expires: 9/98

Public reporting burden for this collection of information is estimated to average 35 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Corporation on National Service, 1201 New York Ave., Washington, DC 20525; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

NATIONAL COMMUNITY SERVICE STUDY

Brandeis University
Abt Associates, Inc.

Dear Student:

We would like to ask your help on a very important project.

This survey is part of a national study of community service and service-learning programs. As you may know, these are programs that encourage young people to take part in volunteer activities in the community. Thousands of schools and community organizations run community service programs. We are asking you and your classmates to join over 1,500 young people across the country in taking part in this study.

This survey asks a number of questions that will help us learn about the characteristics, attitudes, and activities of young people who are involved in community service programs. It is also being given to young people who are not in community service programs so that we can learn about them as well. Whichever group you are part of, we are interested in your thoughts, feelings, and actions. Please help us by answering as honestly as you can.

As you complete this questionnaire, there are three important points we want you to keep in mind:

First, this survey is **confidential**. ***No one at your school or in your community will ever see your answers to any of the questions.*** When you are done, you will put your questionnaire into an envelope and seal it, and it will be sent directly to the researchers at Brandeis University and Abt Associates in Boston, Massachusetts. The Brandeis/Abt researchers are the **only** people who will ever see the completed surveys. Your responses will be combined with many other surveys, so your answers will never be examined individually.

Second, this survey is **voluntary**, and we appreciate your participation. If there are any questions that you do not want to answer, you may leave them blank.

Third, **this is not a test. There are no "right" or "wrong" answers.** Just try to give the answer that best shows how you think or feel.

Thank you for answering these questions. If you have any questions, please ask your teacher.

Office Use Only:

____

ID: ☐☐☐☐☐☐☐☐☐ 1-9/

Batch: ☐☐☐☐☐☐ 10-15/

SECTION A Please print clearly.

1. What is your name? ______________________________
FIRST 16-25/ MIDDLE INITIAL 26/ LAST 27-41/

2. What is the name of your school? ______________________________ 42-71/

3. Who is your teacher for this class? ______________________________ 72-96/

4. What is today's date? _____/_____/19___ 97-102/
MONTH DAY YEAR

SECTION B

Below are sentences that have two different endings, one on the left and one on the right. Using the scale below, please circle the number that best shows how you would finish the sentence. For example, in the question below, circling 4 would mean that you "sort of" think that people who get good grades study hard. Circling 1 would mean that you really think that they are just naturally smart.

Please circle only one number. Do not mark between the numbers. Remember, there are no right or wrong answers.

Sample:

People who get really good grades...

are just naturally smart. — study hard to get those grades.

1 2 3 [✓ 4] 5

1. Taking care of people who are having difficulty caring for themselves...

is everyone's responsibility, including mine. — is not my responsibility.

1 2 3 4 5 103/

2. Being actively involved in political or social issues. ..

is not that important to community life.	is an important way to improve the community.

1 2 3 4 5 104/

3. Helping others without being paid...

is not something people should feel they have to do.	is something everyone should feel they have to do.

1 2 3 4 5 105/

4. Being concerned about state and local issues is...

an important responsibility for everybody.	not something in which most people should be involved.

1 2 3 4 5 106/

5. Helping a person in need...

is something people should do only for friends or relatives.	is something people should do for anyone, even if they don't know them.

1 2 3 4 5 107/

6. Doing something about school-wide problems...

is a job for only a few students who want to be involved.	is something every student should be involved in.

1 2 3 4 5 108/

7. Helping other people...

is something I feel a strong need to do.	is something I prefer to let others do.

1 2 3 4 5 109/

8. Being actively involved in community issues...

is everyone's responsibility, including mine.

is not my responsibility.

1 2 3 4 5 110/

9. Helping other people...

is something I feel personally responsible for.

is something I don't feel personally responsible for.

1 2 3 4 5 111/

10. Participating in activities that help improve the community...

is an important job for everyone, even beginners.

is only the job of people who know how to do it.

1 2 3 4 5 112/

Good start. Now, keep going!

SECTION C: IDEAS ABOUT YOURSELF AND OTHERS

For each of the following statements, please indicate whether the statement is very true, sort of true, not very true, or not true at all.

	Very True	Sort of True	Not Very True	Not True at All	
1. I work very hard on my schoolwork.	☐1	☐2	☐3	☐4	113/
2. People can learn a lot from elderly people.	☐1	☐2	☐3	☐4	114/
3. I often go from one thing to another before finishing any one of them.	☐1	☐2	☐3	☐4	115/
4. When a teacher gives direction, I usually understand him or her the first time.	☐1	☐2	☐3	☐4	116/
5. I am aware of needs in my community that I can do something about.	☐1	☐2	☐3	☐4	117/
6. I won't do well in school if the teachers don't like me.	☐1	☐2	☐3	☐4	118/
7. I know what is expected of a leader of a group project.	☐1	☐2	☐3	☐4	119/
8. I'm pretty smart in school.	☐1	☐2	☐3	☐4	120/
9. I know how to design and implement a community service project.	☐1	☐2	☐3	☐4	121/
10. Hard work is never fun.	☐1	☐2	☐3	☐4	122/

	Very True	Sort of True	Not Very True	Not True at All	
11. I am not really accepted and liked.	☐1	☐2	☐3	☐4	123/
12. I don't know how to keep myself from getting bad grades.	☐1	☐2	☐3	☐4	124/
13. I do not mix well with other people.	☐1	☐2	☐3	☐4	125/
14. I have to be lucky to do well in school.	☐1	☐2	☐3	☐4	126/
15. I pay attention in class.	☐1	☐2	☐3	☐4	127/
16. People with disabilities can hold jobs and contribute to society.	☐1	☐2	☐3	☐4	128/
17. I find it hard to stick to anything that takes a long time to do.	☐1	☐2	☐3	☐4	129/
18. In a discussion, I often find it hard to understand what people are trying to say.	☐1	☐2	☐3	☐4	130/
19. I try to learn as much as I can about my school subjects.	☐1	☐2	☐3	☐4	131/
20. I often forget to listen to what others are saying.	☐1	☐2	☐3	☐4	132/

	Very True	Sort of True	Not Very True	Not True at All	
21. Trying hard is the best way for me to do well in school.	☐1	☐2	☐3	☐4	133/
22. I enjoy doing something that will benefit others in the community.	☐1	☐2	☐3	☐4	134/
23. I'm not very smart in school.	☐1	☐2	☐3	☐4	135/
24. I would rather not live near people of different races or ethnic groups.	☐1	☐2	☐3	☐4	136/
25. I don't try very hard in school.	☐1	☐2	☐3	☐4	137/
26. No one should expect you to do work that you don't like.	☐1	☐2	☐3	☐4	138/
27. It would probably be better if most old people kept to themselves.	☐1	☐2	☐3	☐4	139/
28. I am confident in expressing my opinions in front of a group.	☐1	☐2	☐3	☐4	140/
29. I believe students my age have enough influence to be able to impact community decisions.	☐1	☐2	☐3	☐4	141/
30. I'm pretty lucky at getting good grades.	☐1	☐2	☐3	☐4	142/

	Very True	Sort of True	Not Very True	Not True at All	
31. I have to be smart to get good grades.	☐1	☐2	☐3	☐4	143/
32. I would not make friends with a person who had very different manners, clothes, or looks from most of my other friends.	☐1	☐2	☐3	☐4	144/
33. I get upset if I am not immediately successful in learning something new.	☐1	☐2	☐3	☐4	145/
34. People find it hard to figure me out from what I say.	☐1	☐2	☐3	☐4	146/
35. I can't work very hard in school.	☐1	☐2	☐3	☐4	147/
36. I am personally committed to community service both now and later in life.	☐1	☐2	☐3	☐4	148/
37. It is hard for me to speak my thoughts clearly.	☐1	☐2	☐3	☐4	149/
38. When I am in class, I try very hard.	☐1	☐2	☐3	☐4	150/
39. If I'm not smart, I won't get good grades.	☐1	☐2	☐3	☐4	151/
40. I often leave my homework unfinished if there are a lot of good TV shows on that evening.	☐1	☐2	☐3	☐4	152/

	Very True	Sort of True	Not Very True	Not True at All	
41. I am not good at describing things in writing.	☐1	☐2	☐3	☐4	153/
42. It's very important to me to do my work well.	☐1	☐2	☐3	☐4	154/
43. The best way for me to get good grades is to get my teacher to like me.	☐1	☐2	☐3	☐4	155/
44. I dislike being with people with a disability.	☐1	☐2	☐3	☐4	156/
45. Very often I forget work I am supposed to do.	☐1	☐2	☐3	☐4	157/
46. It is not hard to give a talk in front of other people.	☐1	☐2	☐3	☐4	158/
47. If I don't do well on my schoolwork, it's because I didn't try hard enough.	☐1	☐2	☐3	☐4	159/
48. I believe that I personally can make a difference in my community.	☐1	☐2	☐3	☐4	160/
49. I dislike being with people whose physical abilities are different than mine.	☐1	☐2	☐3	☐4	161/
50. I can do well in school if I want to.	☐1	☐2	☐3	☐4	162/

Keep going! You're doing great!

	Very True	Sort of True	Not Very True	Not True at All	
51. It is hard for me to talk to someone I don't know.	☐1	☐2	☐3	☐4	163/
52. I am unlucky in school.	☐1	☐2	☐3	☐4	164/
53. It bothers me if a teacher or a classmate is different from me.	☐1	☐2	☐3	☐4	165/
54. I can't get my teachers to like me.	☐1	☐2	☐3	☐4	166/
55. If I'm unlucky, I won't do well in school.	☐1	☐2	☐3	☐4	167/
56. I would have no problem working with a person whose race or ethnicity is different from mine.	☐1	☐2	☐3	☐4	168/
57. I don't work very hard in school.	☐1	☐2	☐3	☐4	169/
58. I can learn a lot from people with backgrounds and experiences that are different from mine.	☐1	☐2	☐3	☐4	170/
59. When I am in school, I feel happy	☐1	☐2	☐3	☐4	171/
60. I know what resources are available to help me with a community project.	☐1	☐2	☐3	☐4	172/

	Very True	Sort of True	Not Very True	Not True at All	
61. I don't know what it takes to get good grades in school.	☐1	☐2	☐3	☐4	173/
62. I often don't finish work I start.	☐1	☐2	☐3	☐4	174/
63. I prefer to spend time with different types of people, not just people like me.	☐1	☐2	☐3	☐4	175/
64. I can't do well in school.	☐1	☐2	☐3	☐4	176/
65. I can get teachers to like me.	☐1	☐2	☐3	☐4	177/
66. When I am in class, I just act as if I'm working.	☐1	☐2	☐3	☐4	178/
67. I seldom get behind in my work.	☐1	☐2	☐3	☐4	179/
68. I feel that most adults are supportive of students' efforts to work on community problems.	☐1	☐2	☐3	☐4	180/
69. I can work really hard in school.	☐1	☐2	☐3	☐4	181/

Great Job! You are more than half done!

SECTION D: SCHOOL EXPERIENCE

1. How important is it to you to do the best you can in school?

☐1 Very important 182/

☐2 Sort of important

☐3 Not very important

☐4 Not important at all

2. In an average week, about how many hours do you spend doing homework (in school and after school)?

☐1 0 hours 183/

☐2 1-2 hours

☐3 3-5 hours

☐4 6-10 hours

☐5 11 hours or more

3. How far would you like to go in school if you could? (CHECK ONE)

☐1 Drop out of high school before graduation 184/

☐2 Get a GED

☐3 Graduate from high school

☐4 Graduate from a 2-year college

☐5 Graduate from a 4-year college

☐6 Attend graduate school (Master's or Ph.D.)

4. Have you ever dropped out of school?

☐1 Yes ☐2 No 185/

5. Have you ever repeated a grade?

☐1 Yes ☐2 No 186/

SECTION E: COMMUNITY SERVICE EXPERIENCE

1. Think back to the last school year. During the last half of the year (January to June), did you do any of the following things?

   a. Volunteer for a community organization that does socially useful work, such as providing day care for children or helping the homeless?

      ☐1 Yes ☐2 No 187/

   b. Serve as a volunteer counselor, mentor, teacher's aide, or tutor in your school or another organization?

      ☐1 Yes ☐2 No 188/

   c. Write a letter to a newspaper, elected official, or government agency about an issue that you thought was important to the community?

      ☐1 Yes ☐2 No 189/

   d. Get involved in a recycling project?

      ☐1 Yes ☐2 No 190/

   e. Take part in a community project such as cleaning up a neighborhood park or working in a food bank?

      ☐1 Yes ☐2 No 191/

   f. Visit or help take care of someone in a nursing home or hospital?

      ☐1 Yes ☐2 No 192/

   g. Help to organize a project to raise money or collect food or clothing for people in need?

      ☐1 Yes ☐2 No 193/

   h. Volunteer in a public safety project, such as a neighborhood crime watch or a drug prevention program?

      ☐1 Yes ☐2 No 194/

2. During the last half of the school year last year (January to June), how often did you do some volunteer or community service work?

a. I volunteered ______ (number) days a week. 195/

b. On average, I volunteered ______ (number) hours each day. 196-197/

c. I did this for ______ (number of weeks) of the 26 weeks between January and June. 198-199/

3. Last school year, were you in a community service or service learning program that was organized by or took place in your school?

☐1 Yes ☐2 No 200/

4. Before last year, were you involved in any community service or service-learning programs that were organized by or took place in your school?

☐1 Yes ☐2 No 201/

5. Do you feel all students should be encouraged to participate in community service?

☐1 Yes ☐2 No 202/

You're doing great! You're almost done!

SECTION F: EXTRACURRICULAR ACTIVITIES

1. During the last half of the school year last year (January to June), did you participate in any of the following activities or organizations?

   a. School or non-school sports team

   ☐1 Yes ☐2 No 203/

   b. After school club (such as a math club or school band)

   ☐1 Yes ☐2 No 204/

   c. Religious youth group

   ☐1 Yes ☐2 No 205/

   d. Social club or organization outside of school

   ☐1 Yes ☐2 No 206/

2. Did you work for pay last summer?

   ☐1 Yes ☐2 No (GO TO QUESTION 4) 207/

3. How many hours per week did you work?

   ☐1 Less than 10 hours 208/
   ☐2 11-20 hours
   ☐3 21-30 hours
   ☐4 31-40 hours
   ☐5 More than 40 hours

4. Did you work for pay during the last school year?

   ☐1 Yes ☐2 No (GO TO SECTION G) 209/

5. How many hours per week did you work?

   ☐1 Less than 10 hours 210/
   ☐2 11-20 hours
   ☐3 21-30 hours
   ☐4 31-40 hours
   ☐5 More than 40 hours

SECTION G: SOCIAL EXPERIENCES

The questions below ask about several kinds of social behaviors. Please answer them as honestly as you can. Remember, no one at your school will see your answers to these questions. If there are any questions that you do not want to answer, you may leave them blank.

1. In the past 30 days, have you had anything to drink, such as a glass of wine, a beer, or a mixed drink?

   ☐1 Yes ☐2 No (SKIP TO QUESTION 3) 211/

2. In the past 30 days, have you ever had five or more alcoholic drinks in a row?

   ☐1 Yes ☐2 No 212/

3. In the past 30 days, have you used marijuana or another illegal drug?

   ☐1 Yes ☐2 No 213/

4. Have you ever been pregnant, or made someone pregnant?

   ☐1 Yes ☐2 No 214/

5. During the last 6 months, have you ever ...

   a. Gotten into a fight where a group of your friends was against another group?

      ☐1 Yes ☐2 No 215/

   b. Hurt someone badly enough to need bandages or a doctor?

      ☐1 Yes ☐2 No 216/

   c. Used a knife or a gun or some other weapon (like a club) to get something from a person?

      ☐1 Yes ☐2 No 217/

   d. Been arrested and charged with a crime or parole violation?

      ☐1 Yes ☐2 No 218/

SECTION H: QUESTIONS ABOUT YOU

1. Are you male or female?

☐1 Male ☐2 Female 219/

2. How old are you? ______ years old 220-221/

3. What grade are you in? ______ grade 222-223/

4. How would you describe your racial or ethnic background? (CHECK ONE)

☐1 White (not Hispanic) 224/
☐2 Black/African American (Not Hispanic)
☐3 Hispanic/Latino
☐4 Asian/Pacific Islander
☐5 American Indian/Alaskan Native
☐6 Other (specify:)___________ 225-226/

5. Do you speak English at home?

☐1 Yes ☐2 No 227/

6. Do you live with:

☐1 Both parents? 228/
☐2 Mother only?
☐3 Father only?
☐4 Other relatives?
☐5 Other guardians? Who? ____________________ 229-230/

7. In the past 6 months, have you spent one or more nights in a shelter or some other temporary place because you had no other place to stay?

☐1 Yes ☐2 No 231/

8. What was the main reason you took part in this community service program? (CHECK ONE)

☐1 Everyone in my class is participating 232/
☐2 Everyone in the school is enrolled 233/
☐3 The school requires it 234/
☐4 My friends are enrolled 235/
☐5 I wanted to help other people
☐6 I wanted to learn new things
☐7 I wanted to make new friends
☐8 My parents wanted me to
☐9 Other: ____
236-237/

Thank you!

We appreciate the time you have taken to complete this questionnaire. Remember, all of your answers will be kept confidential. No one in your school or program will see any of the information in this questionnaire. When you have finished, please put the questionnaire in the envelope and seal it.

FOR OFFICE USE ONLY:

Program Name:________________________________ 238-242/

Program Code: ___ ___ 243-244/ ☐☐☐ 245-247/

Participant Status: P 248/

OMB #: 3045-0028
Expires: 9/98

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NATIONAL COMMUNITY SERVICE STUDY

Brandeis University
Abt Associates, Inc.

Dear Student:

Earlier this year, we asked you and your classmates to complete a survey as part of a national study of community service and service-learning programs. Over 1,500 young people across the country are taking part in the study.

This survey is another important part of the same study. Like the earlier survey, it asks a number of questions that will help us learn about you, your attitudes and beliefs, and your activities. Many of the questions are the same as those on the earlier survey. By asking the same questions a second time we can see how your ideas and activities have changed during the year, or if they have stayed the same.

We hope that you will help us by answering these questions as honestly and completely as you can. Your thoughts, feelings, and actions are important to us and can help us understand what is important to students like you.

As you complete this questionnaire, there are three important points we want you to keep in mind:

First, this survey is **confidential.** ***No one at your school or in your community will ever see your answers to any of the questions.*** When you are done, you will put your questionnaire into an envelope and seal it, and it will be sent directly to the researchers at Brandeis University and Abt Associates in Boston, Massachusetts. The Brandeis/Abt researchers are the **only** people who will ever see the completed surveys. Your responses will be combined with many other surveys, so your answers will never be examined individually.

Second, this survey is **voluntary**, and we appreciate your participation. If there are any questions that you do not want to answer, you may leave them blank.

Third, **this is not a test. There are no "right" or "wrong" answers.** Just try to give the answer that best shows how you think or feel.

Thank you for answering these questions. If you have any questions, please ask your teacher.

Office Use Only:

____

ID: ☐☐☐☐☐☐☐☐☐ 1-9/

Batch: ☐☐☐☐☐☐ 10-15/

SECTION A Please print clearly.

1. What is your name? ______________________________________
FIRST 16-25/ MIDDLE INITIAL 26/ LAST 27-41/

2. What is the name of your school? ______________________________ 42-71/

3. Who is your teacher for this class? ______________________________ 72-96/

4. What is today's date? _____/_____/19___ 97-102/
MONTH DAY YEAR

SECTION B: SERVICE EXPERIENCE

The following questions are about the service activity you participated in as part of the Learn and Serve program at your school.

1. Overall, how satisfied were you with your service experience?

☐1 Very satisfied, 103/
☐2 Somewhat satisfied,
☐3 Somewhat dissatisfied, or
☐4 Very dissatisfied?

2. Did you feel that the service you performed was...

☐1 Very helpful to the community, 104/
☐2 Somewhat helpful to the community,
☐3 Not very helpful to the community, or
☐4 Not helpful at all?

3. Did you feel that the service you performed was...

☐1 Very helpful to the individuals you served, 105/
☐2 Somewhat helpful to the individuals you served,
☐3 Not very helpful to the individuals you served, or
☐4 Not helpful at all?

4. Did you learn a particular skill that will be useful to you in the future?

☐1 Yes 106/
☐2 No

5. Do you feel that all students should be encouraged to participate in community service?

☐1 Yes 107/
☐2 No

6. Should all students be required to participate in community service?

☐1 Yes 108/
☐2 No

7. Did you work as part of a team (group, crew, etc.) or on an individual assignment?

☐1 Team 109/
☐2 Individual
☐3 Both Team and Individual

8. What kinds of service were you involved in? **(CHECK ALL THAT APPLY)**

☐1 Education 110/
(for example working as a teacher's aide, mentor, or tutor; helping with school clean-up; or working in a Head Start program)

☐2 Human services/Human needs 111/
(for example taking care of children, helping the elderly, or working in a hospital, homeless shelter or food pantry)

☐3 Environment 112/
(for example cleaning up a park or playground, or testing water quality in a stream)

☐4 Public safety 113/
(for example doing peer mediation, drug or alcohol abuse prevention, or taking part in a neighborhood watch or community policing project)

☐5 Other (PLEASE SPECIFY:) ______________________________ 114/

115-116/

9. Were your service activities mostly: **(CHECK ONLY ONE)**

☐1 Activities **directly** helping other people 117/
(for example working in a nursing home or a shelter or tutoring or mentoring someone)

☐2 Activities that **indirectly** help other people 118/
(for example raising money or collecting food or clothing for people in need, or recycling cans or cleaning a park)

☐3 **Both** types of activities in equal amounts 119/

10. Did you design or select your specific service project or activity, or were you assigned an activity by someone else?

☐1 Designed it myself 120/
☐2 Was assigned

11. Did your program include time set aside in class when you talked about your service experience?

☐1 Yes 121/
☐2 No

12. Did you keep a journal or diary as part of your service project?

☐1 Yes 122/
☐2 No

13. Did you develop a really good personal relationship with someone during your service experience?

☐1 Yes 123/
☐2 No **(GO TO QUESTION 14)**

If yes, was that person... **(CHECK ALL THAT APPLY)**

☐1 My supervisor at the community service site 124/
☐2 Another adult working at the site 125/
☐3 A teacher 126/
☐4 Another student working at the same site 127/
☐5 A person I was helping 128/
☐6 Other (Who?: ________________________________) 129/
130-131/

14. When you compare your service experience to a typical class that you've taken in school, did you learn...

☐1 Much more, 132/
☐2 More,
☐3 About the same,
☐4 Less, or
☐5 Much less than in a typical class?

15. Did your service help you think about the kind of job you might want when you are an adult, or help you learn more about a career you thought you might be interested in? **(CHECK ALL THAT APPLY)**

☐1 Yes, my service helped me think about the kind of job or career I might want. 133/

☐2 Yes, my service helped me learn more about a job or career I thought I might be interested in. 134/

☐3 No, my service did not help me think about jobs and careers. 135/

16. The following list describes some features of a community service/service-learning experience. Please describe your community service experience by answering whether you experienced each feature very often, fairly often, sometimes, once in a great while, or practically never.

	Very Often	Fairly Often	Some-times	Once in a Great While	Practically Never	
a. Had real responsibilities	☐1	☐2	☐3	☐4	☐5	136/
b. Had challenging tasks	☐1	☐2	☐3	☐4	☐5	137/
c. Made important decisions	☐1	☐2	☐3	☐4	☐5	138/
d. Discussed my experiences with teachers	☐1	☐2	☐3	☐4	☐5	139/
e. Did things myself instead of observing	☐1	☐2	☐3	☐4	☐5	140/
f. Had freedom to develop and use my own ideas	☐1	☐2	☐3	☐4	☐5	141/
g. Discussed my experiences with my family and friends	☐1	☐2	☐3	☐4	☐5	142/
h. Adults at the site took a personal interest in me	☐1	☐2	☐3	☐4	☐5	143/
i. Had freedom to explore my own interests	☐1	☐2	☐3	☐4	☐5	144/
j. Had a variety of tasks to do at the site	☐1	☐2	☐3	☐4	☐5	145/
k. Needed more help from my supervisor	☐1	☐2	☐3	☐4	☐5	146/
l. Adults critiicized me or my work	☐1	☐2	☐3	☐4	☐5	147/
m. Felt I made a contribution	☐1	☐2	☐3	☐4	☐5	148/

SECTION C

Below are sentences that have two different endings, one on the left and one on the right. Using the scale below, please circle the number that best shows how you would finish the sentence. For example, in the question below, circling 4 would mean that you "sort of" think that people who get good grades study hard. Circling 1 would mean that you really think that they are just naturally smart.

Please circle only one number. Do not mark between the numbers. Remember, there are no right or wrong answers.

Sample:

People who get really good grades...

are just naturally smart.	study hard to get those grades.

1 2 3 [✓ 4] 5

1. Taking care of people who are having difficulty caring for themselves...

is everyone's responsibility, including mine.	is not my responsibility.

1 2 3 4 5 149/

2. Being actively involved in political or social issues. ..

is not that important to community life.	is an important way to improve the community.

1 2 3 4 5 150/

3. Helping others without being paid...

is not something people should feel they have to do.	is something everyone should feel they have to do.

1 2 3 4 5 151/

4. Being concerned about state and local issues is...

an important responsibility for everybody.	not something in which most people should be involved.

1 2 3 4 5 152/

5. Helping a person in need...

is something people should do only for friends or relatives.	is something people should do for anyone, even if they don't know them.

1 2 3 4 5 153/

6. Doing something about school-wide problems...

is a job for only a few students who want to be involved.	is something every student should be involved in.

1 2 3 4 5 154/

7. Helping other people...

is something I feel a strong need to do.	is something I prefer to let others do.

1 2 3 4 5 155/

8. Being actively involved in community issues...

is everyone's responsibility, including mine.	is not my responsibility.

1 2 3 4 5 156/

9. Helping other people...

is something I feel personally responsible for.	is something I don't feel personally responsible for.

1 2 3 4 5 157/

10. Participating in activities that help improve the community...

is an important job for everyone, even beginners.	is only the job of people who know how to do it.

1 2 3 4 5 158/

Good start. Now, keep going!

SECTION D: IDEAS ABOUT YOURSELF AND OTHERS

For each of the following statements, please indicate whether the statement is very true, sort of true, not very true, or not true at all.

		Very True	Sort of True	Not Very True	Not True at All	
1.	I work very hard on my schoolwork.	☐1	☐2	☐3	☐4	159/
2.	People can learn a lot from elderly people.	☐1	☐2	☐3	☐4	160/
3.	I often go from one thing to another before finishing any one of them.	☐1	☐2	☐3	☐4	161/
4.	When a teacher gives direction, I usually understand him or her the first time.	☐1	☐2	☐3	☐4	162/
5.	When I am planning or working on community service activities, I feel happy.	☐1	☐2	☐3	☐4	163/
6.	I am aware of needs in my community that I can do something about.	☐1	☐2	☐3	☐4	164/
7.	I won't do well in school if the teachers don't like me.	☐1	☐2	☐3	☐4	165/
8.	I know what is expected of a leader of a group project.	☐1	☐2	☐3	☐4	166/
9.	I'm pretty smart in school.	☐1	☐2	☐3	☐4	167/
10.	I know how to design and implement a community service project.	☐1	☐2	☐3	☐4	168/

	Very True	Sort of True	Not Very True	Not True at All	
11. When I am at my service site, I don't work very hard.	☐1	☐2	☐3	☐4	169/
12. Hard work is never fun.	☐1	☐2	☐3	☐4	170/
13. I am not really accepted and liked.	☐1	☐2	☐3	☐4	171/
14. I don't know how to keep myself from getting bad grades.	☐1	☐2	☐3	☐4	172/
15. When I am planning my community service activities, I work very hard.	☐1	☐2	☐3	☐4	173/
16. I do not mix well with other people.	☐1	☐2	☐3	☐4	174/
17. I have to be lucky to do well in school.	☐1	☐2	☐3	☐4	175/
18. I pay attention in class.	☐1	☐2	☐3	☐4	176/
19. People with disabilities can hold jobs and contribute to society.	☐1	☐2	☐3	☐4	177/
20. I find it hard to stick to anything that takes a long time to do.	☐1	☐2	☐3	☐4	178/
21. In a discussion, I often find it hard to understand what people are trying to say.	☐1	☐2	☐3	☐4	179/

	Very True	Sort of True	Not Very True	Not True at All	
22. I try to learn as much as I can about my school subjects.	☐1	☐2	☐3	☐4	180/
23. I often forget to listen to what others are saying.	☐1	☐2	☐3	☐4	181/
24. Trying hard is the best way for me to do well in school.	☐1	☐2	☐3	☐4	182/
25. I enjoy doing something that will benefit others in the community.	☐1	☐2	☐3	☐4	183/
26. I pay attention when planning or working on my community service activities.	☐1	☐2	☐3	☐4	184/
27. I'm not very smart in school.	☐1	☐2	☐3	☐4	185/
28. I would rather not live near people of different races or ethnic groups.	☐1	☐2	☐3	☐4	186/
29. I don't try very hard in school.	☐1	☐2	☐3	☐4	187/
30. No one should expect you to do work that you don't like.	☐1	☐2	☐3	☐4	188/
31. It would probably be better if most old people kept to themselves.	☐1	☐2	☐3	☐4	189/
32. I am confident in expressing my opinions in front of a group.	☐1	☐2	☐3	☐4	190/

	Very True	Sort of True	Not Very True	Not True at All	
33. I believe students my age have enough influence to be able to impact community decisions.	☐1	☐2	☐3	☐4	191/
34. I'm pretty lucky at getting good grades.	☐1	☐2	☐3	☐4	192/
35. I have to be smart to get good grades.	☐1	☐2	☐3	☐4	193/
36. I would not make friends with a person who had very different manners, clothes, or looks from most of my other friends.	☐1	☐2	☐3	☐4	194/
37. I get upset if I am not immediately successful in learning something new.	☐1	☐2	☐3	☐4	195/
38. When I am working on my community service activities, I try very hard.	☐1	☐2	☐3	☐4	196/
39. People find it hard to figure me out from what I say.	☐1	☐2	☐3	☐4	197/
40. I can't work very hard in school.	☐1	☐2	☐3	☐4	198/
41. I am personally committed to community service both now and later in life.	☐1	☐2	☐3	☐4	199/
42. It is hard for me to speak my thoughts clearly.	☐1	☐2	☐3	☐4	200/
43. When I am in class, I try very hard.	☐1	☐2	☐3	☐4	201/
44. If I'm not smart, I won't get good grades.	☐1	☐2	☐3	☐4	202/

		Very True	Sort of True	Not Very True	Not True at All	
45.	I often leave my homework unfinished if there are a lot of good TV shows on that evening.	☐1	☐2	☐3	☐4	203
46.	I am not good at describing things in writing.	☐1	☐2	☐3	☐4	204/
47.	It's very important to me to do my work well.	☐1	☐2	☐3	☐4	205/
48.	The best way for me to get good grades is to get my teacher to like me.	☐1	☐2	☐3	☐4	206/
49.	When I am planning or working on my community service, I just act as if I am working.	☐1	☐2	☐3	☐4	207/
50.	I dislike being with people with a disability.	☐1	☐2	☐3	☐4	208/
51.	Very often I forget work I am supposed to do.	☐1	☐2	☐3	☐4	209/
52.	It is not hard to give a talk in front of other people.	☐1	☐2	☐3	☐4	210/
53.	If I don't do well on my schoolwork, it's because I didn't try hard enough.	☐1	☐2	☐3	☐4	211/
54.	I believe that I personally can make a difference in my community.	☐1	☐2	☐3	☐4	212/
55.	I dislike being with people whose physical abilities are different than mine.	☐1	☐2	☐3	☐4	213/

	Very True	Sort of True	Not Very True	Not True at All	
56. I can do well in school if I want to.	☐1	☐2	☐3	☐4	214/
57. It is hard for me to talk to someone I don't know.	☐1	☐2	☐3	☐4	215/
58. I am unlucky in school.	☐1	☐2	☐3	☐4	216/
59. It bothers me if a teacher or a classmate is different from me.	☐1	☐2	☐3	☐4	217/
60. When I am at my service site, I don't try very hard.	☐1	☐2	☐3	☐4	218/
61. I can't get my teachers to like me.	☐1	☐2	☐3	☐4	219/
62. If I'm unlucky, I won't do well in school.	☐1	☐2	☐3	☐4	220/
63. I would have no problem working with a person whose race or ethnicity is different from mine.	☐1	☐2	☐3	☐4	221/
64. I don't work very hard in school.	☐1	☐2	☐3	☐4	222/
65. I can learn a lot from people with backgrounds and experiences that are different from mine.	☐1	☐2	☐3	☐4	223/
66. When I am in school, I feel happy	☐1	☐2	☐3	☐4	224/
67. I know what resources are available to help me with a community project.	☐1	☐2	☐3	☐4	225/

Keep going! You're doing great!

	Very True	Sort of True	Not Very True	Not True at All	
68. I don't know what it takes to get good grades in school.	☐1	☐2	☐3	☐4	226/
69. I often don't finish work I start.	☐1	☐2	☐3	☐4	227/
70. I prefer to spend time with different types of people, not just people like me.	☐1	☐2	☐3	☐4	228/
71. I try to learn as much as I can about my community service.	☐1	☐2	☐3	☐4	229/
72. I can't do well in school.	☐1	☐2	☐3	☐4	230/
73. I can get teachers to like me.	☐1	☐2	☐3	☐4	231/
74. When I am in class, I just act as if I'm working.	☐1	☐2	☐3	☐4	232/
75. I seldom get behind in my work.	☐1	☐2	☐3	☐4	233/
76. I feel that most adults are supportive of students' efforts to work on community problems.	☐1	☐2	☐3	☐4	234/
77. I can work really hard in school.	☐1	☐2	☐3	☐4	235/

Great Job! You are more than half done!

SECTION E: SCHOOL EXPERIENCE

1. How important is it to you to do the best you can in school?

☐1 Very important 236/
☐2 Sort of important
☐3 Not very important
☐4 Not important at all

2. In an average week, about how many hours do you spend doing homework (in school and after school)?

☐1 0 hours 237/
☐2 1-2 hours
☐3 3-5 hours
☐4 6-10 hours
☐5 11 hours or more

3. How far would you like to go in school if you could? **(CHECK ONLY ONE)**

☐1 Drop out of high school before graduation 238/
☐2 Get a GED
☐3 Graduate from high school
☐4 Graduate from a 2-year college
☐5 Graduate from a 4-year college
☐6 Attend graduate school (Master's or Ph.D.)

SECTION F: COMMUNITY SERVICE EXPERIENCE

1. During the past six months, did you do any of the following things?

a. Volunteer for a community organization that does socially useful work, such as providing day care for children or helping the homeless?

☐1 Yes ☐2 No 239/

b. Serve as a volunteer counselor, mentor, teacher's aide, or tutor in your school or another organization?

☐1 Yes ☐2 No 240/

c. Write a letter to a newspaper, elected official, or government agency about an issue that you thought was important to the community?

☐1 Yes ☐2 No 241/

d. Get involved in a recycling project?

☐1 Yes ☐2 No 242/

e. Take part in a community project such as cleaning up a neighborhood park or working in a food bank?

☐1 Yes ☐2 No 243/

f. Visit or help take care of someone in a nursing home or hospital?

☐1 Yes ☐2 No 244/

g. Help to organize a project to raise money or collect food or clothing for people in need?

☐1 Yes ☐2 No 245/

h. Volunteer in a public safety project, such as a neighborhood crime watch or a drug prevention program?

☐1 Yes ☐2 No 246/

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2. During the past six months, how often did you do some volunteer or community service work?

a. I volunteered ______ days a week. 247/
(number)

b. On average, I volunteered ______ hours each day. 248-249/
(number)

c. I did this for ______ of the 26 weeks during the past 6 months. 250-251/
(number of weeks)

3. How important is it to you to do the best you can when you are planning or working on community service activities? **(CHECK ONLY ONE)**

- ☐1 Very important 252/
- ☐2 Sort of important
- ☐3 Not very important
- ☐4 Not important at all

You're almost done!

SECTION G: SOCIAL EXPERIENCES

The questions below ask about several kinds of social behaviors. Please answer them as honestly as you can. Remember, no one at your school will see your answers to these questions. If there are any questions that you do not want to answer, you may leave them blank.

1. In the past 30 days, have you had anything to drink, such as a glass of wine, a beer, or a mixed drink?

   ☐1 Yes ☐2 No (SKIP TO QUESTION 3) 253/

2. In the past 30 days, have you ever had five or more alcoholic drinks in a row?

   ☐1 Yes ☐2 No 254/

3. In the past 30 days, have you used marijuana or another illegal drug?

   ☐1 Yes ☐2 No 255/

4. Have you ever been pregnant, or made someone pregnant?

   ☐1 Yes ☐2 No 256/

5. During the last 6 months, have you ever ...

   a. Gotten into a fight where a group of your friends was against another group?

      ☐1 Yes ☐2 No 257/

   b. Hurt someone badly enough to need bandages or a doctor?

      ☐1 Yes ☐2 No 258/

   c. Used a knife or a gun or some other weapon (like a club) to get something from a person?

      ☐1 Yes ☐2 No 259/

   d. Been arrested and charged with a crime or parole violation?

      ☐1 Yes ☐2 No 260/

Thank you!

We appreciate the time you have taken to complete this questionnaire. Remember, all of your answers will be kept confidential. No one in your school or program will see any of the information in this questionnaire. When you have finished, please put the questionnaire in the envelope and seal it.

For office use only:

Program Name:____

Program Code: ___ ___ ☐☐☐ 261-265/

Participant Status: P 266/

388

OMB No. 3045-0028
Expires: 9/98

National Community Service Evaluation
Teacher Survey

Brandeis University
Abt Associates Inc.

Hello. We would like to ask a few minutes of your time.

Your school is one of seventeen sites involved in a national evaluation of school-based service-learning programs. Service-learning is an educational strategy that engages young people in service to their communities as part of a structured academic curriculum and is designed to enrich academic learning, promote personal growth, and help students develop the skills needed for productive citizenship. Through the national evaluation, we hope to learn about the impact of service-learning programs on participating students, teachers and schools, and communities.

The purpose of this survey is to learn more about your understanding of and experience with service-learning and the role of service-learning in your school. We distributed a similar survey approximately 18 months ago. This survey will help us to update the information collected then and to see whether any changes have taken place in your school's use of service-learning since that time.

We would appreciate it if you would take a few minutes to answer the questions on this survey. The survey itself takes no more than 5 to 10 minutes to complete. We recognize that your day as a teacher is already very busy, but believe that this survey can help your school and others better understand the role of service-learning in public education.

Your responses to the survey are completely confidential. No one in your school or district will see your individual responses. To ensure this, please be sure to seal your completed survey in the accompanying envelope. The sealed surveys will be sent directly to the national evaluators at Brandeis University.

Thank you again for your time and assistance.

Office Use Only:

Program Code: __ __ __ __ __ 1-5/

ID: __ __ __ __ __ __ __ __ __ 6-14/

Batch #: __ __ __ __ __ 15-19

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1. During the past few years, your school received a Learn and Serve grant to operate community service or service-learning programs in the school. Are you familiar with the program or programs funded by this grant?

☐1 Yes ☐2 No *(Go to Question 2)* 20/

a. If YES, how did you learn about the program(s)? *(Check all that apply)*

☐1 word of mouth from other teachers/staff 21/
☐2 word of mouth from students in the program(s) 22/
☐3 a memorandum, newsletter article, or printed notice 23/
☐4 a presentation at a faculty meeting 24/
☐5 a formal in-service training workshop 25/
☐6 a one-on-one or small group meeting with the person responsible for the program. 26/
☐7 Other *(Please specify:)* ______________________________ 27/

2. Have you used service-learning in your own classroom(s) this school year?

☐1 Yes ☐2 No *(Go to Question 3)* 28/

a. If YES, in what class/classes have you used service-learning?

Grade Level(s)	Subject Matter		
____	______________________________	29-30/	31-32/
____	______________________________	33-34/	35-36/
____	______________________________	37-38/	39-40/
____	______________________________	41-42/	43-44/
____	______________________________	45-46/	47-48/
____	______________________________	49-50/	51-52/

b. How long have you been using service-learning? *(Check one)*

☐1 I began **this** school year 53/
☐2 I began **last** school year
☐3 I began 2 to 5 years ago
☐4 I began more than 5 years ago

c. How would you describe your use of service-learning in your classroom(s): *(Check all that apply)*

☐1 Service integrated into a core ***academic*** subject (for example, where service-learning is integrated into a math, english, or science course as a means of teaching those subjects) 54/

☐2 A ***separate*** community involvement or service-learning course (for example, a separate class or advisory period that focuses on community service). 55/

☐3 Other *(Please describe:)* ____________________ 56/

____________________________ 57-58/

3. Do you plan to use service-learning in any of your classes next year?

☐1 Yes ☐2 No 59/

4. During this school year, have you been involved in service activities within your school other than those in your own classroom (such as an after-school club or assisting with a school-wide service project)?

☐1 Yes ☐2 No *(Go to Question 5)* 60/

a. If YES, please briefly describe ____________________ 61-62/B

____________________________ 63-64/B

____________________________ 65-66/B

____________________________ 67-68/B

5. Have you ever participated in any training or professional development seminars related to **service-learning**?

☐1 Yes ☐2 No *(Go to Question 6)* 69/

a. If YES, what type(s) of training/professional development have you participated in? *(Check all that apply)*

☐1 A brief orientation to service-learning (for example, a 1-2 hour presentation at your school, or a session at an educational conference). 70/
☐2 A half-day workshop. 71/
☐3 A full-day workshop. 72/
☐4 A multi-day training session (for example, a 3-5 day workshop or multiple, sequential one-day sessions). 73/
☐5 Other *(Please specify:)* ______________________________ 74/

b. Approximately how many **hours** of training/professional development on **service-learning** have you received?

_____ (total hours for all activities) 75-76/

6. Overall, how would you rate your **familiarity** with service-learning? On the scale below, please ***circle*** the number that best indicates your knowledge.

1	2	3	4	5
Very Familiar		Somewhat Familiar		Not Familiar

77/

7. How **interested** would you say you are in using service-learning in your classes? On the scale below, please ***circle*** the number that best indicates your interest.

1	2	3	4	5
Very Interested		Somewhat Interested		Not Interested

78/

8. Do you feel that all students should be encouraged to participate in community service?

☐1 Yes ☐2 No 79/

9. Do you feel that all students should be required to participate in community service?

☐1 Yes ☐2 No 80/

10. How often do you use any of the following approaches/techniques in your classes? *(Check one box on each line)*

	Very Often	**Often**	**Not Often**	**Never**	
a. Hands-on learning	☐1	☐2	☐3	☐4	81/
b. Work or community-related situations and materials	☐1	☐2	☐3	☐4	82/
d. Individualized learning processes (e.g. self-paced, one on one)	☐1	☐2	☐3	☐4	83/
e. Applied exercises or projects	☐1	☐2	☐3	☐4	84/
f. Team teaching	☐1	☐2	☐3	☐4	85/
g. Interdisciplinary teaching	☐1	☐2	☐3	☐4	86/
h. Guest speakers from local businesses and the community	☐1	☐2	☐3	☐4	87/
i. Student work on projects in the community	☐1	☐2	☐3	☐4	88/

11. Please indicate the degree to which each of the following is a problem in your school. *(Check one box on each line)*

	Not a Problem	Minor Problem	Moderate Problem	Serious Problem	
a. Student absenteeism	☐1	☐2	☐3	☐4	89/
b. Student tardiness or class cutting	☐1	☐2	☐3	☐4	90/
d. Physical conflicts among students	☐1	☐2	☐3	☐4	91/
e. Student vandalism or theft	☐1	☐2	☐3	☐4	92/
f. Student disrespect for teachers	☐1	☐2	☐3	☐4	93/
g. Substance abuse by students	☐1	☐2	☐3	☐4	94/
h. Racial/ethnic conflict among students	☐1	☐2	☐3	☐4	95/
i. Student apathy	☐1	☐2	☐3	☐4	96/

12. How likely do you think it is that a service-learning program can produce the following outcomes for students? *(Check one box on each line)*

	Extremely Likely	Somewhat Likely	Not Very Likely	Not Likely at All	
a. Improved attitudes towards school	☐1	☐2	☐3	☐4	97/
b. Increased academic or intellectual achievement	☐1	☐2	☐3	☐4	98/
c. Increased career awareness	☐1	☐2	☐3	☐4	99/
d. Increased exposure to social justice issues	☐1	☐2	☐3	☐4	100/
e. Increased personal development (e.g., self esteem)	☐1	☐2	☐3	☐4	101/
f. Reduced involvement in risk behaviors (such as alcohol or drug abuse)	☐1	☐2	☐3	☐4	102/
g. Increased social development (e.g., social responsibility, leadership skills)	☐1	☐2	☐3	☐4	103/
h. Increased student involvement in school and community activities	☐1	☐2	☐3	☐4	104/

13. What do you see as the major barriers (if any) to implementing service-learning in your classroom(s)?

____ 105/
106-107/B

____

____

Please tell us about yourself.

14. What grade level(s) do you currently teach? *(Check all that apply)*

☐ 6	☐ 7	☐ 8	☐ 9	☐ 10	☐ 11	☐ 12
108/	109/	110/	111/	112-113/	114-115/	116-117/

Other *(Specify:)* ______________________________ 118-119/

15. What subjects do you teach? *(Check all that apply)*

- ☐1 English/Language Arts 120/
- ☐2 Math 121/
- ☐3 Social Studies 122/
- ☐4 Science 123/
- ☐5 Art/Music 124/
- ☐6 Health/Physical Education 125/
- ☐7 Vocational Education 126/
- ☐8 Other *(Please specify)* ______________________________ 127/

128-129/
____ 130-131/
132-133/

16. How long have you been teaching? _____ Years 134-135/

17. How long have you been teaching in **this** school? _____ Years 136-137/

18. How old are you? _____ Years old 138-139/

19. During the past 12 months, have you taken part in any volunteer activities in your community?

☐1 Yes ☐2 No *(Go to Question 20)* 140/

If YES, how did you get involved? *(Check all that apply)*

☐1 With my students at school 141/
☐2 On my own or with my family 142/
☐3 With an organization or club 143/
☐4 With my church/religious organization 144/
☐5 Other *(Please specify:)* ______________________ 145/
146-147/

20. What is your **highest** professional degree?

☐1 Bachelor's Degree 148/
☐2 B.A. plus course work
☐3 Master's degree
☐4 M.A. plus course work
☐5 Doctorate
☐6 Other *(Please specify:)* ______________________ 149-150/

21. How would you describe your racial or ethnic background? *(Please check one)*

☐1 White (Not Hispanic) 151/
☐2 Black/African-American (Not Hispanic)
☐3 Hispanic/Latino
☐4 Asian/Pacific Islander
☐5 American Indian/Alaskan Native
☐6 Other *(Please specify:)* ______________________ 152-153/

22. *(OPTIONAL:)* Do you have any other comments on the role of service-learning in your school?

154/

____ 155-156/B

____ 157-158/B

____ 159-160/B

____ 161-162/B

____ 163-164/B

THANK YOU VERY MUCH FOR TAKING THE TIME
TO COMPLETE THIS SURVEY.

OMB#: 3045-0028
Expires: 9/98

COMMUNITY IMPACTS SURVEY
HOST AGENCY SURVEY

Program ID: __ __ __ __ __ 1-5/

Interviewer: ______________________________ 6/ Date: ____/____/199__ 7-12/

Site: ______________________________

Program Name:______________________________

Contact Name: ______________________________

Telephone #: (_____) _____ - ______ Fax #: (_____) _____ - ______

Agency/Organization: ______________________________

Project:______________________________ **Project ID#:** __ __ __ __ 13-16/

Hello. My name is ____________________ from Brandeis University. (Site Liaison) from the (Program Name) at (School) gave me your name and phone number. We are conducting a national evaluation of the programs funded by the Corporation for National Service. I understand that your organization has experience working with ____________________, which is one of the programs in the national evaluation. As part of the evaluation, we are collecting information on the specific accomplishments of programs like ____________________ and also attempting to put a value on the services provided by the program. To do so, we are talking to community members who have knowledge of the programs. Are you the correct contact person to answer some questions related to the project?

IF YES$_{(1)}$ TO CORRECT CONTACT: Are you free to speak with me at this time? I will only take about 10 minutes. (NOTE: IF RESPONDENT IS NOT AVAILABLE TO COMPLETE THE INTERVIEW, SET AN APPOINTMENT FOR A FUTURE TIME AND DATE.)

IF NO$_{(2)}$ TO CORRECT CONTACT: Could you please refer me to the proper person to answer some questions related to the work that ____________________ completed for you? 17/

NOTES/NEXT ACTIONS:

____

____

____

____

____

____

____

COMMUNITY IMPACTS SURVEY

A.

1. I'd like to begin by finding out a little bit about your agency, your role within the agency and about the Learn and Serve project conducted for your agency. Please tell me about your agency and the Learn and Serve project.

18/

B. Participant and Non-Participant Volunteers

2. Next I'd like to collect some information on the work that the (NAME OF PROJECT) students performed for your organization during the most recent semester. Could you tell me how many student volunteers from the program you had and how much they worked? Were there any adults or one-time volunteers who worked with you as part of the Learn and Serve program? How much did they work on (NAME OF PROJECT)?

	Program Information	Participants	Non-Participant Volunteers
Number	19-21/	22-24/	25-27/
Number of Weeks	▨	28-29/	30-31/
Average hours per week	▨	32-33/	34-35/

3. Is this semester the first time you have had student volunteers from this program at your agency?

☐1 Yes 36/
☐2 No

4. Do you currently have **other** school-aged youth as volunteers—that is, students not in this program—at your agency? If yes, approximately how many?

☐1 Yes How many? ______ 37/
☐2 No 38-41/

C. Accomplishments

5. We would also like to know more about the specific accomplishments of the community service efforts in the **most recent** semester. Can you list the specific accomplishments or products that were the results of the community service work at your organization and the number of students involved in each? Some examples might include landscaping a section of a playground, building storage units for the food pantry, tutoring 25 fifth graders, or organizing a party for nursing home residents.

Accomplishment: ______________________________

____

______________________________ 42/

AREA OF EMPHASIS: # Students: __________ 43-45/

☐1 Education ☐2 Human Needs ☐3 Public Safety ☐4 Environment 46/

Accomplishment: ______________________________

____

______________________________ 47/

AREA OF EMPHASIS: # Students: __________ 48-50/

☐1 Education ☐2 Human Needs ☐3 Public Safety ☐4 Environment 51/

Accomplishment: ______________________________

____

______________________________ 52/

AREA OF EMPHASIS: # Students: __________ 53-55/

☐1 Education ☐2 Human Needs ☐3 Public Safety ☐4 Environment 56/

Accomplishment: ______________________________

____

______________________________ 57/

AREA OF EMPHASIS: # Students: __________ 58-60/

☐1 Education ☐2 Human Needs ☐3 Public Safety ☐4 Environment 61/

Accomplishment: ______________________________

____

______________________________ 62/

AREA OF EMPHASIS: # Students: __________ 63-65/

☐1 Education ☐2 Human Needs ☐3 Public Safety ☐4 Environment 66/

Accomplishment: ______________________________

____

______________________________ 67/

AREA OF EMPHASIS: # Students: __________ 68-70/

☐1 Education ☐2 Human Needs ☐3 Public Safety ☐4 Environment 71/

Accomplishment: ______________________________

____

______________________________ 72/

AREA OF EMPHASIS: # Students: __________ 73-75/

☐1 Education ☐2 Human Needs ☐3 Public Safety ☐4 Environment 76/

D. Value of Labor

6. We intend to place a dollar value on the work of the participants. One way is by asking organizations to estimate what they would be willing to pay someone to perform the same work at the same level of quality and productivity.

What would you be willing to pay someone at this level—that is, to perform the same quality and productivity of work? (PROBE FOR HOURLY RATE.)

$________ . ______ HOURLY WAGE 77-81/

IF RESPONDENT REFUSES TO ANSWER Q.6, TO GO Q.6b.

6a. If hired, would you provide (this person/these persons) persons with any fringe benefits? IF YES: Which of the following would you provide?

☐1 Vacation 82/
☐2 Sick leave 83/
☐3 Health insurance 84/
☐4 Child care 85/
☐5 No, no benefits 86/

GO TO Q.7.

6b. Would you be willing to pay the participant(s) the minimum wage ($4.25) for their work?

☐1 Yes 87/
☐2 No

7. How much of this work would have gotten done without the services of the participant(s)?

☐1 Yes, all of it 88/
☐2 Yes, most of it (more than half)
☐3 Yes, some of it (less than half)
☐4 No, none of it (GO TO Q.8)

7a. **IF AT LEAST SOME OF IT:** Who would carry out the work? (**READ LIST. CHECK ALL THAT APPLY.**)

☐1 Regular staff 89/
☐2 Temporary staff 90/
☐3 Volunteers 91/

8. Did the **Learn and Serve program** provide any supplies or equipment for this project?

☐1 Supplies 92/
☐2 Equipment 93/

8a. **IF YES TO SUPPLIES:** What did they supply and what was the total value of the supplies (for example, books, pencils, and paper for tutoring; shrubs or flowers for a landscaping project)?

____

____ 94-95/

$__________.00 VALUE OF SUPPLIES 96-101/

IF YES TO EQUIPMENT: What equipment did they supply (for example, tools for trail clearing or construction work)?

____

____ 102-103/

What do you think it would have cost to rent (or purchase) the equipment for the time it was needed?

$__________.00 RENTAL OR PURCHASE COST 104-109/

E. Quality of Service/Benefits to Beneficiaries

9. Now I would like to ask you about the quality of the work done by the participants. On a scale of 1-10, where 1 is **unacceptable** and 10 is the **best** possible, how would you rate the **quality** of the work done by the participants?

1 2 3 4 5 6 7 8 9 10 110-111/

10. Overall, how would you rate your experience with the (NAME OF PROGRAM) as a whole? Would you say excellent, good, fair, or poor?

☐1 Excellent 112/
☐2 Good
☐3 Fair
☐4 Poor

11. What specific impacts or benefits do you believe the services provided by the volunteers have had on the service beneficiaries or on the community (for example, tutoring helped increase reading skills)? Can you provide specific examples?

Service beneficiaries impacts: ______________________________

______________________________ 113-114/

____

Community benefits/impacts: ______________________________

______________________________ 115-116/

____

12. Overall, how would you assess the impact of the work done by the student volunteers on the service beneficiaries or on the community (depending on the project)? On a scale of 1-10, where 1 is **no impact** and 10 is **greatly** impacted.

Impact on beneficiaries:

1 2 3 4 5 6 7 8 9 10 117-118/

Impact on community:

1 2 3 4 5 6 7 8 9 10 119-120/

13. Would you use participants from this program again?

☐1 YES 121/
☐2 NO
☐3 DON'T KNOW

E. Institutional Impact

Finally, we are also interested in the impact of your agency's participation in this program on **the agency** as an institution.

14. Has the involvement of your agency in this program had positive impacts on your agency? If so, what are some of the specific kinds of impacts? **(READ LIST. CHECK ALL THAT APPLY)**

☐1 No positive impacts 122/
☐2 Improved services to our clients/community 123/
☐3 Increased agency capacity to undertake new projects 124/
☐4 Increased use of students/youth as volunteers 125/
☐5 Established new relationship/partnership with the public schools 126/
☐6 More positive attitude towards youth in community 127/
☐7 More positive attitude towards working with schools 128/
☐8 Other: ______________________________ 129/

______________________________ 130-131/

______________________________ 132-133/

15. Have there been any negative effects on your agencies (for example, time diverted from other pressing needs)? If so, what have they been?

☐1 No negative impacts 134/
☐2 Yes, negative impacts **IF YES:** Please describe these impacts.

135/

16. Have there been any specific barriers or impediments to participation in the program (for example, student scheduling conflicts) that you have had to overcome? **IF YES:** What have they been?

136/

Is there any additional information about the program that you would like to share with me?

137/

THANK YOU AGAIN FOR YOUR TIME AND ASSISTANCE.